

&lt;400&gt; 4730

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 Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr  
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 Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met  
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 Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser  
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 Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu  
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 Val Gly Lys Leu  
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&lt;210&gt; 4731

&lt;211&gt; 2417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4731

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<210> 4732

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4732

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Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
 35           40           45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
 50           55           60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
 65           70           75           80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
 85           90           95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
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<210> 4733

<211> 543

<212> DNA

<213> Homo sapiens

<400> 4733

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 <213> Homo sapiens

<400> 4734  
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 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu  
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 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly  
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 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp  
 65 70 75 80  
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln  
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 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu  
 100 105 110  
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 <213> Homo sapiens

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<210> 4736  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens



<400> 4736  
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 20 25 30  
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 35 40 45  
 Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln  
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 Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro  
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<210> 4737  
 <211> 2602  
 <212> DNA  
 <213> Homo sapiens

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<210> 4738  
 <211> 756  
 <212> PRT  
 <213> Homo sapiens

<400> 4738  
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 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg  
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 50 55 60  
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu  
 65 70 75 80  
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu  
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 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala  
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 Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu  
 130 135 140  
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 180 185 190  
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys  
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 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp  
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 355 360 365  
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420      425      430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
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Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450      455      460
Ser Cys Pro Leu Pro Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465      470      475      480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485      490      495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500      505      510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515      520      525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
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545      550      555      560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565      570      575
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      580      585      590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595      600      605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610      615      620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625      630      635      640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645      650      655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660      665      670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675      680      685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690      695      700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705      710      715      720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
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Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
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Gln Met Ser Ser
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<210> 4739  
 <211> 684  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 4739

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684

&lt;210&gt; 4740

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4740

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Pro Ala Val Thr Gln Leu Ser His Leu Arg Gly Ser Leu Asp Ala Ala  
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Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala  
35 40 45  
Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu  
50 55 60  
Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu  
65 70 75 80  
Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu  
85 90 95  
Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser  
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&lt;210&gt; 4741

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 300  
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa  
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<210> 4742  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

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 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu  
 35 40 45  
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe  
 50 55 60  
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg  
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 <211> 473  
 <212> DNA  
 <213> Homo sapiens

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<210> 4744  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 4744  
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 35 40 45  
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu  
 50 55 60  
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser  
 65 70 75 80  
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly  
 85 90 95  
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile  
 100 105 110  
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu  
 115 120 125  
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 Ala Asn Gly Met Met Glu  
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<210> 4745  
 <211> 666  
 <212> DNA  
 <213> Homo sapiens

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 666

<210> 4746  
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 <212> PRT  
 <213> Homo sapiens

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 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile  
 35 40 45  
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr  
 50 55 60  
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr  
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 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu  
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 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu  
 100 105 110  
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro  
 115 120 125  
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser  
 130 135 140  
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp  
 145 150 155 160  
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala  
 165 170 175  
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile  
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 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn  
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<210> 4747  
 <211> 1091  
 <212> DNA  
 <213> Homo sapiens

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 aaaaaaaaaa a  
 1091

&lt;210&gt; 4748

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4748

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			20					25					30		
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
			35					40					45		
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
			50					55				60			
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65					70					75				80	
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<212> DNA
<213> Homo sapiens
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2196

&lt;210&gt; 4750

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4750

```

Xaa Arg Val Ser Ser Met Ala Ser Ala Asp Ser Arg Arg Leu Ala Asp
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      20           25           30
Gln Glu Leu Gln Gln Thr Asp Pro Thr Leu Leu Ser Val Val Val Ala
      35           40           45
Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
      50           55           60
Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
65           70           75           80
Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
      85           90           95
Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
      100          105          110
Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
      115          120          125
Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
      130          135          140
Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
145          150          155          160
Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
      165          170          175
Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
      180          185          190
Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
      195          200          205
Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
      210          215          220
Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
225          230          235          240
Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
      245          250          255
Arg Gly Asp Val Gly Ser Ala Asp Ile Gln Asp Leu Glu Lys Trp Leu
      260          265          270
Ala Lys Ile Ala
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&lt;210&gt; 4751

&lt;211&gt; 2777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4751

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&lt;210&gt; 4752

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4752

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			20					25					30		
Leu	Leu	Asp	Ser	Leu	His	Val	Gln	Thr	Phe	Phe	His	Arg	Phe	Asp	Pro
		35					40					45			
Ser	Leu	Trp	Pro	Arg	Ile	Thr	Phe	Leu	Leu	Pro	Pro	Ala	Pro	Pro	Pro
		50				55					60				
Met	Leu	Ala	Ala	Pro	Gln	Leu	Ile	Gln	Arg	Pro	Val	Met	Leu	Thr	Lys
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Phe	Thr	Pro	Thr	Thr	Leu	Pro	Thr	Ser	Gln	Asn	Ser	Ile	His	Pro	Val
				85					90					95	
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Val	Lys	Ser	His	Thr	Glu	Thr	Asp	Glu	Lys	Gln	Thr	Glu	Ser	Arg	Thr
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Ile	Thr	Pro	Pro	Ala	Ala	Pro	Lys	Pro	Lys	Arg	Glu	Glu	Asn	Pro	Gln
				165						170				175	
Lys	Leu	Ala	Phe	Met	Val	Ser	Leu	Gly	Leu	Val	Thr	His	Asp	His	Leu
			180					185					190		
Glu	Glu	Ile	Gln	Ser	Lys	Arg	Gln	Glu	Arg	Lys	Arg	Arg	Thr	Thr	Ala
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Asn	Pro	Val	Tyr	Ser	Gly	Ala	Val	Phe	Glu	Pro	Glu	Arg	Lys	Lys	Ser
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Ala	Val	Thr	Tyr	Leu	Asn	Ser	Thr	Met	His	Pro	Gly	Thr	Arg	Lys	Arg
	225				230					235				240	
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				245					250					255	
Ser	Val	Cys	Arg	Lys	Ser	Gly	Gln	Leu	Leu	Met	Cys	Asp	Thr	Cys	Ser
			260					265					270		
Arg	Val	Tyr	His	Leu	Asp	Cys	Leu	Asp	Pro	Pro	Leu	Lys	Thr	Ile	Pro
	275						280					285			
Lys	Gly	Met	Trp	Ile	Cys	Pro	Arg	Cys	Gln	Asp	Gln	Met	Leu	Lys	Lys
	290					295					300				
Glu	Glu	Ala	Ile	Pro	Trp	Xaa	Trp	Asn	Phe	Ser	Asn	Cys	Ser	Phe	Leu
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Tyr	Cys	Leu	Gln	Ser	Ser	Lys	Arg	Arg	Arg	Glu	Thr	Glu	Val	Thr	
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&lt;210&gt; 4753

&lt;211&gt; 5298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4753

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60

ccgccacggc caccgcctgg acctttgccc ggagggagct gcagagggtc catcgccgcc

120

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240

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&lt;210&gt; 4754

&lt;211&gt; 748

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4754

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Gly Glu Leu Gln Asp Leu Gln Ser Glu Gly Asn Ser Ser Pro Ala Gly
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 <213> Homo sapiens

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 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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<212> DNA

<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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<212> DNA  
<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4764

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Lys	Arg</																				

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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile		
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 <212> DNA  
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<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
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Lys	Gln	Glu	Asp	Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe



				180					185				190			
Phe	Tyr	Ser	Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala	
		195					200					205				
Trp	Leu	Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile	
	210					215					220					
Ile	Ile	Asp	Val	Thr	Ser	Pro	Arg	Ser	Arg	Asp	Cys	Val	Ala	Ile	Leu	
225					230					235					240	
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys	Val	
			245						250					255		
Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His	Val	Pro	
			260					265					270			
Pro	Glu	Thr	Leu	Gly	Glu	Gly	Asp									
	275						280									

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<210> 4767
<211> 1380
<212> DNA
<213> Homo sapiens
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180					
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240					
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300					
gcgcccctcc	aagtgttcag	cacttactcc	aacgaggatt	acgatcgtcg	caacgaggat
360					
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420					
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480					
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660					
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720					
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900					
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960					
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1020					

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 1080  
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 1200  
 aagtacagca aggccaagcg cctcatcaag gactaccagc agaaggagat cgagttcctg  
 1260  
 aaaaaggaga ctgcacagcg tcgggttctg gaggagtcgg agctggccag aaaggaggag  
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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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			20					25					30		
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
		35				40					45				
Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp
	50				55					60					
Glu	Gly	Asp	Gly	Glu	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu	
65				70				75					80		
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile	
			85				90					95			
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
			100				105					110			
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
	115					120					125				
Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
	130				135					140					
Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met
145			150				155						160		
Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys
		165					170					175			
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
		180					185					190			
Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
	195					200					205				
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg
	210					215					220				
Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
225			230					235					240		
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
		245					250					255			
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
	260					265					270				
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly

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      275              280              285
Glu Met Ala Ile Glu Val Phe Glu Leu Ala Glu Asn Glu Asp Ala Leu
 290              295              300
Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu
 305              310              315              320
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys
      325              330              335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu
      340              345              350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu
      355              360              365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val
 370              375              380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg
 385              390              395              400
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu
      405              410              415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu
      420              425              430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile
      435              440              445
Ser Glu Leu Glu Gly Asn Leu Gln Thr Leu Arg Asn
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<210> 4769  
 <211> 1533  
 <212> DNA  
 <213> Homo sapiens

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<400> 4769
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ggtcacacga ggggcatttt ccttggtgta agtgtagtct aaaccagtag gaaggaggtt
 180
taattgccaa aaccagcgag aactcgggca ctgtggatac tacagtgggc agctgaacga
 240
ggaccaagga gaatgtctaa gaggcctcca gccctgcgct cagtgaagac aggacaggaa
 300
caacagagca tacatacctt ggaaggggtgt gttctgatat actcgtatgg aaagtcttga
 360
cagggtttct ccctgggaag tgcagcacat accccaacac actggctctg ccagtgtgcc
 420
aatccagat ggtgcttgct ttgtgtgcac ccacaccaa acccctgccc tcccatatgc
 480
tcttctgtgt gccaggtag gccctgccct caggcagcag cttctgaaca cattcctctt
 540
ggcgagaca aaagaaagta cttcgtctgt ggaattcgag gctgagcctg agttctagca
 600
caagaagacc gttgcagtcc agagatgaga aactggacca gaggcaaadc atgaacagaa
 660
cgggagtcaa gagaaggggt ttctaagatg gagaagtggg ggcggtgtg gatccagtgg
 720

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gatgtggctt cccaggttg caacccaag gaagtctctg gaagcagcac cagtctgat  
 780  
 gggggagcag aagagctgcc atcctcagtc aggggtccgag tcagggtccg aggagagctg  
 840  
 ctgctccata gtctcgaca tggcatcctg cagggacgta agatgacccc ggggactcat  
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 1380  
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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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Lys	Arg	Leu	His	Gln	Thr	His	Arg	Leu	Lys	Glu	Cys	Val	Ala	Pro	Val
			20					25					30		
Leu	Ser	Val	Leu	Thr	Glu	Cys	Ala	Arg	Met	His	Arg	Pro	Ala	Arg	Lys
		35				40						45			
Phe	Leu	Lys	Ala	Gln	Val	Leu	Pro	Pro	Leu	Arg	Asp	Val	Arg	Thr	Arg
		50				55					60				
Pro	Glu	Val	Gly	Asp	Leu	Leu	Arg	Asn	Lys	Leu	Val	Arg	Leu	Met	Thr
		65			70				75				80		
His	Leu	Asp	Thr	Asp	Val	Lys	Arg	Val	Ala	Ala	Glu	Phe	Leu	Phe	Val
			85					90					95		
Leu	Cys	Ser	Glu	Ser	Val	Pro	Arg	Phe	Ile	Lys	Tyr	Thr	Gly	Tyr	Gly
			100					105					110		
Asn	Ala	Ala	Gly	Leu	Leu	Ala	Ala	Arg	Gly	Leu	Met	Ala	Gly	Gly	Arg
		115				120					125				
Pro	Glu	Gly	Gln	Tyr	Ser	Glu	Asp	Glu	Asp	Thr	Asp	Thr	Asp	Glu	Tyr
		130				135					140				
Lys	Glu	Ala	Lys	Ala	Ser	Ile	Asn	Pro	Val	Thr	Gly	Arg	Val	Glu	Glu

145					150				155				160			
Lys	Pro	Pro	Asn	Pro	Met	Glu	Gly	Met	Thr	Glu	Glu	Gln	Lys	Glu	His	
				165				170				175				
Glu	Ala	Met	Lys	Leu	Val	Thr	Met	Phe	Asp	Lys	Leu	Ser	Ser	Pro	Thr	
				180				185				190				
Ala	Pro	Phe	Pro	Asn	Arg	Asn	Arg	Val	Ile	Gln	Pro	Met	Gly	Met	Ser	
				195				200				205				
Pro	Arg	Gly	His	Leu	Thr	Ser	Leu	Gln	Asp	Ala	Met	Cys	Glu	Thr	Met	
				210				215				220				
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<210> 4771
<211> 2653
<212> DNA
<213> Homo sapiens
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240
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300
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900
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960
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1020
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1080

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1140  
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1200  
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1260  
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1320  
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1380  
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2520  
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2653

<210> 4772  
 <211> 182  
 <212> PRT  
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<400> 4772  
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                                   20                                  25                                  30  
 Ile Lys Gln Arg Asp Lys Arg Leu Glu Trp Glu Met Met Cys Arg Val  
                                   35                                  40                                  45  
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg  
                                   50                                  55                                  60  
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His  
                                   65                                  70                                  75                                  80  
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg  
                                   85                                  90                                  95  
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser  
                                   100                                  105                                  110  
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg  
                                   115                                  120                                  125  
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro  
                                   130                                  135                                  140  
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys  
                                   145                                  150                                  155                                  160  
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 Ala Ser Asp Ser Asp Thr  
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 <211> 319  
 <212> DNA  
 <213> Homo sapiens

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                                   120  
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                                   180  
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                                   240  
 agcctggacc cagcatccca tctcctcagc tctcaggag gtggaagctg ggaacccac  
                                   300  
 ccccaacccc ttcacgct  
                                   319

<210> 4774  
 <211> 91  
 <212> PRT

<213> Homo sapiens

<400> 4774

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      20             25             30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35             40             45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50             55             60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
      65             70             75             80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
      85             90

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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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120
tgggccttaaa catgaaccaa catggcggat gcttcaagca agtgggggttg ctggggccta
180
aaggtggaga ggggtgaaat gaaaagactc gcctcttctt cccccactaa ctccctcctc
240
tggtgcact gccctccttg ctatttcttt gaacgtgccaccataccgc gacctcactg
300
cccttgact tgctctctct gcttctccta actatacatg cggtcatcc tgtaacttcc
360
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420
ccccgcttaa acg
433

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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Met Ala Asp Ala Ser Ser Lys Trp Gly Cys Trp Ala Leu Lys Val Glu
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Arg Gly Glu Met Lys Arg Leu Ala Ser Ser Ser Pro Thr Asn Ser Leu
      20             25             30
Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35             40             45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
      50             55             60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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65                      70                      75                      80  
Leu Lys Arg Pro Ser Leu Thr Ile Leu Phe Asn Ile Pro Pro Arg Leu  
                      85                      90                      95  
Asn

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<210> 4777
<211> 2200
<212> DNA
<213> Homo sapiens
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<400> 4777
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120
aaacgcgtac aggcactgca ggaggagagt cgctacctac gggcagtcct agccaacgag
180
actggactgg ctcgcttgct gagccggctg agcggcgctg gactgcggct gaccacctcg
240
ctcttcagag actcgcccg cggtgaccac gactacgctc tgccgggtgg aaagcagaag
300
caggacctgc tggagagga cgactcggcg ggaggagtct gtctccatgt ggacaaggat
360
aaggtgtcgg tggagtctcg ctcggcgtgc gcccggaagg cgctcgtctc tcttaaaatt
420
ttctttttta ggtgatttcc ttctgcccag gctccgttgt aggggttaca gaacagtcgt
480
tccgcctca caacctgtgg atacagctgt tggggcagaa gagacgggac cagctgctgg
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&lt;210&gt; 4778

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4778

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&lt;210&gt; 4780

&lt;211&gt; 1241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4780

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Pro Gly Glu Ala Ala Val Arg Arg Ser Val Glu His Leu Gln Lys His
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Leu Pro Lys Arg Pro Gln His Leu Pro Gly His Pro Gly Trp Tyr Arg
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Trp Asp Gly Phe Pro Leu His Tyr Ser Glu Arg His Gly Trp Gly Tyr
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Thr Leu Glu Ser Ala Gly Val Val Cys Pro Tyr Arg Ala Ile Glu Ser
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Leu Tyr Arg Lys His Cys Leu Glu Gln Gly Lys Gln Gln Leu Met Pro
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Gln Glu Ala Gly Leu Ala Glu Glu Phe Leu Leu Thr Asp Asn Ser Ala
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Ile Trp Gln Thr Val Glu Glu Leu Asp Tyr Leu Glu Val Glu Ala Glu
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Ala Lys Met Glu Asn Leu Arg Ala Ala Val Pro Gly Gln Pro Leu Ala
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Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His
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Gly Asn Gly Pro Tyr Asn Asp Val Asp Ile Pro Gly Cys Trp Phe Phe
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Lys Leu Pro His Lys Asp Gly Asn Ser Cys Asn Val Gly Ser Pro Phe
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Pro Gly Gly Ala Ser Gly Pro Arg Ala Leu Glu Ile Asn Lys Met Ile
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 Gln Ala Pro Pro Gly Tyr Thr Leu Val Gly Ala Asp Val Asp Ser Gln  
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<211> 212

<212> PRT

<213> Homo sapiens

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Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
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Val	Gly	Ile	Gly	His	Leu	Ala	Gly	Met	Thr	Arg	Ser	Ala	Ala	Glu	Gly
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Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp
      165              170              175
Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
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&lt;210&gt; 4785

&lt;211&gt; 3289

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4785

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<212> PRT

<213> Homo sapiens

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Val Leu Val Val Asp Glu Glu Ser Gln Arg Glu Pro Gly Ala Ser Gly Ala	
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Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro Val Cys Ser Arg Val Phe	
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His Leu Ala Arg His His Ser Ile His Leu Ala Gly Gly Gly Arg Pro	
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&lt;210&gt; 4790

&lt;211&gt; 241

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 4790

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&lt;400&gt; 4791

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<211> 179

<212> PRT

<213> Homo sapiens

<400> 4792

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Pro	Ser	Arg	Tyr	Thr	Lys	Ile	Asn	Ser	Arg	Trp	Ile	Lys	Asp	Leu	Asn
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Ala	Ile	Thr	Thr	Lys	Thr	Lys	Ile	Asp	Lys	Trp	Asp	Leu	Ile	Lys	Leu
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Pro Thr Glu Trp Glu Lys Val Leu Ala Trp Glu Lys Ile Phe Ser Asn					
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Gln Ile Tyr

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 <211> 1242  
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 <213> Homo sapiens

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Thr Ser Ser Val Ala Gly Arg Gln Pro Gly Ala Phe Ser Glu Glu Lys  
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&lt;210&gt; 4796

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4796

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&lt;210&gt; 4797

&lt;211&gt; 2848

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4797

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Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser		
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&lt;210&gt; 4799

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4799

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&lt;210&gt; 4800

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4800

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	80

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Gly	Pro	Gly	Ser		
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&lt;210&gt; 4801

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4801

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 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 4802  
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 Pro Lys Ile Leu Phe Leu Phe Tyr Phe Pro Ala Ala Tyr Tyr Ala Ser  
 65 70 75 80  
 Arg Arg Val Gly Ile Ala Val Leu Trp Ile Ser Leu Ile Thr Glu Trp  
 85 90 95  
 Leu Asn Leu Ile Phe Lys Trp Phe Leu Phe Gly Asp Arg Pro Phe Trp  
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 Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro Ala Gln Val His  
 115 120 125  
 Gln Phe Pro Ser Ser Cys Glu Thr Gly Pro Gly Ser Pro Ser Gly His  
 130 135 140  
 Cys Met Ile Thr Gly Ala Ala Leu Trp Pro Ile Met Thr Ala Leu Ser  
 145 150 155 160  
 Ser Gln Val Ala Thr Arg Ala Arg Ser Arg Trp Val Arg Val Met Pro  
 165 170 175  
 Ser Leu Ala Tyr Cys Thr Phe Leu Leu Ala Val Gly Leu Ser Arg Ile  
 180 185 190  
 Phe Ile Leu Ala His Phe Pro His Gln Val Leu Ala Gly Leu Ile Thr  
 195 200 205  
 Gly Ala Val Leu Gly Trp Leu Met Thr Xaa Pro Glu Cys Leu Trp Ser  
 210 215 220  
 Gly Ser Xaa Ser Phe Tyr Gly Leu Thr Ala Leu Ala Leu Met Leu Gly  
 225 230 235 240  
 Thr Ser Leu Ile Tyr Trp Thr Leu Phe Thr Leu Gly Leu Asp Leu Ser  
 245 250 255  
 Trp Ser Ile Ser Leu Ala Phe Lys Trp Cys Glu Arg Pro Glu Trp Ile  
 260 265 270  
 His Val Asp Ser Arg Pro Phe Ala Ser Leu Ser Arg Asp Ser Gly Ala  
 275 280 285  
 Ala Leu Gly Leu Gly Ile Ala Leu His Ser Pro Cys Tyr Ala Gln Val  
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 Arg Arg Ala Gln Leu Gly Asn Gly Gln Lys Ile Ala Cys Leu Val Leu

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305          310          315          320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
          340          345          350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
          355          360          365
Gln Glu Ala Pro Pro Ile His Ser Ser
          370          375

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<210> 4803  
 <211> 564  
 <212> DNA  
 <213> Homo sapiens

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ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaattggc agcggtttct
180
gaatattaca gagatgggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
atttttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
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420
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<210> 4804  
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 <212> PRT  
 <213> Homo sapiens

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<400> 4804
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
          20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
          35          40          45
Ile Met Ser Tyr Ala
50

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<210> 4805  
 <211> 1619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4805

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120  
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc  
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acatctgaga agttaaatgg agtaaaactg tggattacag ctgggccaag ggaaaaattt  
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300  
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360  
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420  
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480  
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780  
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1260  
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1500



aatactcaga taggtataag atttttcaca aaatccttat gtaagatata ttccattttt  
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 1619

<210> 4806  
 <211> 438  
 <212> PRT  
 <213> Homo sapiens

<400> 4806  
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 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu  
 35 40 45  
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys  
 50 55 60  
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly  
 65 70 75 80  
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Glu Ser Arg Phe Asp  
 85 90 95  
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn  
 100 105 110  
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu  
 115 120 125  
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala  
 130 135 140  
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn  
 145 150 155 160  
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val  
 165 170 175  
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro  
 180 185 190  
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly  
 195 200 205  
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu  
 210 215 220  
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp  
 225 230 235 240  
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro  
 245 250 255  
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys  
 260 265 270  
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe  
 275 280 285  
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe  
 290 295 300  
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro  
 305 310 315 320  
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln  
 325 330 335  
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu



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<210> 4808  
 <211> 313  
 <212> PRT  
 <213> Homo sapiens

<400> 4808  
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 Thr Val Tyr Ile Thr Gly Arg His Leu Asp Thr Leu Arg Val Val Ala  
 35 40 45  
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp  
 50 55 60  
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg  
 65 70 75 80  
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly  
 85 90 95  
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro  
 100 105 110  
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr  
 115 120 125  
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly  
 130 135 140  
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn  
 145 150 155 160  
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp  
 165 170 175  
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp  
 180 185 190  
 Pro Gly Ile Val Gln Thr Glu Leu Lys Glu His Met Ala Lys Glu  
 195 200 205  
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser  
 210 215 220  
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala  
 225 230 235 240  
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys  
 245 250 255  
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val  
 260 265 270  
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu  
 275 280 285  
 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp  
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<210> 4809  
 <211> 999  
 <212> DNA  
 <213> Homo sapiens

<400> 4809  
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<210> 4810  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 4810  
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 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala  
 35 40 45  
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

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Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65		70		75
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				
	85		90	95
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				
	100	105		110
Leu Pro Ser Gly Gln Pro Cys Pro				
115		120		

&lt;210&gt; 4811

&lt;211&gt; 3207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4811

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1140

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<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
			35				40					45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
	50					55					60				
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
	65				70				75					80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
			85					90						95	
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
			100					105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
		115					120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
		130				135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
				150					155					160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170						175	
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
			180					185						190	
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
		195					200					205			
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
		210				215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
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 <211> 528  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 420  
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<210> 4816  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

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 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn  
 50 55 60  
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu  
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<210> 4817  
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&lt;210&gt; 4818

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4818

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			20				25						30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
		35				40					45				
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50				55					60					
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65				70					75					80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

	85		90		95										
Gly	Lys	Ile	Asp	Thr	Met	Lys	Lys	Phe	Lys	Ser	Leu	Leu	Ile	Gln	Glu
	100		105		110										
Leu	Ser	Lys	Val	Phe	Pro	Glu	Asp	Met	Ala	Lys	Tyr	Arg	Ser	Ile	Arg
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&lt;210&gt; 4819

&lt;211&gt; 1655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4819

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<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35					40					45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
	50					55					60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
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Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85					90						95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105						110	
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	
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Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
						135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
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Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
				165					170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185						190	
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
		195					200					205			
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
		210				215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225				230					235					240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

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 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp  
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 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr  
 325 330 335  
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 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp  
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 370 375 380  
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 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln  
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 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser  
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 465 470 475 480  
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp  
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 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly  
 500 505 510  
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val  
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<210> 4821  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

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			20					25					30		
Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly
		35					40					45			
Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu
	50					55					60				
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Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser
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Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
		100						105					110		
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
	115					120						125			
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp
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Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

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<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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		20					25					30			
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65				70				75					80		
Lys	Asp	Ala	Glu	Gly	Lys	Ser	Arg	Gly	Cys	Gly	Val	Val	Glu	Phe	Lys
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Asp	Glu	Glu	Phe	Val	Lys	Lys	Ala	Leu	Glu	Thr	Met	Asn	Lys	Tyr	Asp
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			165					170					175		
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		180				185						190			
Trp	Lys	Lys	Leu	Lys	Glu	Val	Phe	Ser	Ile	Ala	Gly	Thr	Val	Lys	Arg
	195					200					205				
Ala	Asp	Ile	Lys	Glu	Asp	Lys	Asp	Gly	Lys	Ser	Arg	Gly	Met	Gly	Thr
	210					215					220				
Val	Thr	Phe	Glu	Gln	Ala	Ile	Glu	Ala	Val	Gln	Ala	Ile	Ser	Met	Phe
225				230				235						240	
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&lt;210&gt; 4825

&lt;211&gt; 2380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4825

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<212> PRT

<213> Homo sapiens

<400> 4826

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Leu	Ser	Gln	Ala	Pro	Ser	Pro	Leu	Ala	Ile	Pro	Ala	Ile	Lys	Glu	Glu								
				370					375					380									
Pro	Leu	Glu	Asp	Leu	Lys	Pro	Cys	Leu	Gly	Ile	Asn	Glu	Ile	Ser	Ser								
385					390					395					400								
Ser	Phe	Phe	Ser	Leu	Leu	Leu	Glu	Ile	Leu	Leu	Leu	Glu	Ser	Gln	Ala								
				405					410					415									
Ser	Leu	Pro	Met	Leu	Glu	Glu	Arg	Val	Leu	Asp	Trp	Gln	Ser	Ser	Pro								
				420					425					430									
Ala	Ser	Ser	Leu	Asn	Ser	Trp	Phe	Ser	Ala	Ala	Pro	Asn	Trp	Ala	Glu								
				435					440					445									
Leu	Val	Leu	Pro	Ala	Leu	Gln	Tyr	Leu	Ala	Gly	Glu	Ser	Arg	Ala	Val								
				450					455					460									
Pro	Ser	Ser	Phe	Ser	Pro	Phe	Val	Glu	Phe	Lys	Glu	Lys	Thr	Gln	Gln								
465					470					475					480								
Trp	Lys	Leu	Leu	Gly	Gln	Ser	Gln	Asp</															



515	520	525
Thr Asp Tyr Val Val Arg Pro	Ser Thr Gly Glu Glu Lys Arg Val Phe	
530	535	540
Gln Glu Gln Glu Arg Tyr Arg Tyr Ser Gln Pro His Lys Ala Phe Thr		
545	550	555
Phe Arg Met His Gly Phe Glu Ser Val Val Gly Pro Val Lys Gly Val		
565	570	575
Phe Asp Lys Glu Thr Ser Leu Asn Lys Ala Arg Glu His Ser Leu Leu		
580	585	590
Arg Ser Asp Arg Pro Ala Tyr Val Thr Ile Leu Ser Leu Val Arg Asp		
595	600	605
Ala Ala Ala Arg Leu Pro Asn Gly Glu Gly Thr Arg Ala Glu Ile Cys		
610	615	620
Glu Leu Leu Lys Asp Ser Gln Phe Leu Ala Pro Asp Val Thr Ser Thr		
625	630	635
Gln Val Asn Thr Val Val Ser Gly Ala Leu Asp Arg Leu His Tyr Glu		
645	650	655
Lys Asp Pro Cys Val Lys Tyr Asp Ile Gly Arg Lys Leu Trp Ile Tyr		
660	665	670
Leu His Arg Asp Arg Ser Glu Glu Glu Phe Glu Arg Ile His Gln Ala		
675	680	685
Gln Ala Ala Ala Lys Ala Arg Lys Ala Leu Gln Gln Lys Pro Lys		
690	695	700
Pro Pro Ser Lys Val Lys Ser Ser Ser Lys Glu Ser Ser Ile Lys Val		
705	710	715
Leu Ser Ser Gly Pro Ser Glu Gln Ser Gln Met Ser Leu Ser Asp Ser		
725	730	735
Ser Met Pro Pro Thr Pro Val Thr Pro Val Thr Pro Thr Thr Pro Ala		
740	745	750
Leu Pro Ala Ile Pro Ile Ser Pro Pro Pro Val Ser Ala Val Asn Lys		
755	760	765
Ser Gly Pro Ser Thr Val Ser Glu Pro Ala Lys Ser Ser Ser Gly Val		
770	775	780
Leu Leu Val Ser Ser Pro Thr Met Pro His Leu Gly Thr Met Leu Ser		
785	790	795
Pro Ala Ser Ser Gln Thr Ala Pro Ser Ser Gln Ala Ala Ala Arg Val		
805	810	815
Val Ser His Ser Gly Ser Ala Gly Leu Ser Gln Val Arg Val Val Ala		
820	825	830
Gln Pro Ser Leu Pro Ala Val Pro Gln Gln Ser Gly Gly Pro Ala Gln		
835	840	845
Thr Leu Pro Gln Met Pro Ala Gly Pro Gln Ile Arg Val Pro Ala Thr		
850	855	860
Ala Thr Gln Thr Lys Val Val Pro Gln Thr Val Met Ala Thr Val Pro		
865	870	875
Val Lys Ala Gln Thr Thr Ala Ala Thr Val Gln Arg Pro Gly Pro Gly		
885	890	895
Gln Thr Gly Leu Thr Val Thr Ser Leu Pro Ala Thr Ala Ser Pro Val		
900	905	910
Ser Lys Pro Ala Thr Ser Ser Pro Gly Thr Ser Ala Pro Ser Ala Ser		
915	920	925
Thr Ala Ala Val Ile Gln Asn Val Thr Gly Gln Asn Ile Ile Lys Gln		
930	935	940
Val Ala Ile Thr Gly Gln Leu Gly Val Lys Pro Gln Thr Gly Asn Ser		

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945          950          955          960
Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
          965          970          975
Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
          980          985          990
Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
          995          1000          1005
Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
          1010          1015          1020
Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
          1025          1030          1035          1040
His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
          1045          1050          1055
Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
          1060          1065          1070
Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
          1075          1080          1085
Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
          1090          1095          1100
Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
          1105          1110          1115          1120
Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
          1125          1130          1135
Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
          1140          1145          1150
Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
          1155          1160          1165
Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
          1170          1175          1180
Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
          1185          1190          1195          1200
Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
          1205          1210          1215
Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
          1220          1225          1230
Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
          1235          1240          1245
Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
          1250          1255          1260
Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
          1265          1270          1275          1280
Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
          1285          1290          1295
Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
          1300          1305          1310
Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
          1315          1320

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<210> 4829
<211> 1605
<212> DNA
<213> Homo sapiens

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```

<400> 4829

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cccgagagc gaggacgacg tgaaggcggg gtggcgcccg gcgaggtagc gccaggcgag  
60  
ctggagacca tggccaaaat ggaggtgaaa acctcacttc tggacaatat gattggagtt  
120  
ggggatatgg ttctttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag  
180  
cgctttgacc acagtgaat atacacttac attggaagtg tggttatata tgtaaccca  
240  
tatcggctctt taccattta ttcaccagag aaagtggag aatacaggaa cagaaatttt  
300  
tatgaactga gccctcatat ctttgccctt tcggatgaag catacagatc cctacgagat  
360  
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc  
420  
agtaagcttg tcatgtccta tgtggcagct gtttgtggaa aaggagcaga agttaatcaa  
480  
gttaagaac agcttttaca gtccaacccg gtccctggaag cttttggaaa tgccaaaact  
540  
gtaaggaatg acaactctc tagatttggc aaatatatgg atattgaatt tgactttaaa  
600  
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttgtaaaa  
660  
cagccaagag gtgaaagaaa ctccatgtg ttctatcagc tgctctctgg tgcctctgaa  
720  
gagctcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagctcg  
780  
gattcggcca aagtgaatgg agtggatgat gcagcaaatt ttagaaccgt gcggaatgcc  
840  
atgcagattg tgggctttat ggatcatgaa gctgagctcg tcttggcggg ggtggcagca  
900  
gtgttgaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa  
960  
agcaaatca aagataaaaa tgagttaaaa gaaatttggt aattgaccgg cattgatcaa  
1020  
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagttca  
1080  
actacactga atgtggctca ggcttattat gccgtgatg ctctggctaa aaacctctac  
1140  
agcaggttgt tttcatggtt ggtaaatcga atcaatgaaa gcattaaggc acaacaaaa  
1200  
gtgagaaaga aggtcatggg tgttctggac atttatggct ttgagatttt cgaggacaac  
1260  
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa  
1320  
cttactctta aagaagagca ggaggagtat atacgggagg atatagaatg gactcacatt  
1380  
gactacttca ataagtctat catthgtgac ctaatagaaa ataacacaaa tggaaatcctg  
1440  
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa  
1500  
aagctgaacc aagtatgtgc caccaccag catthtggaa gcaggatgag caagtgtct  
1560  
cggttcctca atgacacgtc tctgcctcac agctgcttca ggatc  
1605

<210> 4830  
 <211> 512  
 <212> PRT  
 <213> Homo sapiens

<400> 4830  
 Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly  
 1 5 10 15  
 Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile  
 20 25 30  
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile  
 35 40 45  
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr  
 50 55 60  
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu  
 65 70 75 80  
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg  
 85 90 95  
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala  
 100 105 110  
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val  
 115 120 125  
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln  
 130 135 140  
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn  
 145 150 155 160  
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe  
 165 170 175  
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys  
 180 185 190  
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe  
 195 200 205  
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys  
 210 215 220  
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala  
 225 230 235 240  
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn  
 245 250 255  
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu  
 260 265 270  
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro  
 275 280 285  
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn  
 290 295 300  
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu  
 305 310 315 320  
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val  
 325 330 335  
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu  
 340 345 350  
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile  
 355 360 365  
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

370	375	380
Val Leu Asp Ile Tyr	Gly Phe Glu Ile Phe	Glu Asp Asn Ser Phe Glu
385	390	395
Gln Phe Ile Ile Asn Tyr Cys	Asn Glu Lys Leu Gln	Gln Ile Phe Ile
405	410	415
Glu Leu Thr Leu Lys Glu Glu	Gln Glu Tyr Ile Arg	Glu Asp Ile
420	425	430
Glu Trp Thr His Ile Asp Tyr	Phe Asn Asn Ala Ile Ile	Cys Asp Leu
435	440	445
Ile Glu Asn Asn Thr Asn Gly	Ile Leu Ala Met Leu	Asp Glu Glu Cys
450	455	460
Leu Arg Pro Gly Thr Val Thr	Asp Glu Thr Phe Leu	Glu Lys Leu Asn
465	470	475
Gln Val Cys Ala Thr His Gln	His Phe Glu Ser Arg Met	Ser Lys Cys
485	490	495
Ser Arg Phe Leu Asn Asp Thr	Ser Leu Pro His Ser Cys	Phe Arg Ile
500	505	510

&lt;210&gt; 4831

&lt;211&gt; 578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4831

cggacgggtgg ccctcaaagg cccagtcacc aatgccgccca tcctgctggc gcccgtcagc

60

atgctgagct cagacttcag gccagcctg ccgctgcccc acttcaacaa gcacctgctg

120

ggcgccgagc acgggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac

180

cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac

240

gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac

300

acggggccgg ccaagtgagg cccggagacc ccggcccgag gcgcccaggc ctgagcccca

360

tgcctcccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc

420

tcagttctgt gtcgtgttcg ggtttttctt ctgtgactgg gccgtcttgg tgtctcgtgg

480

cacgcgtcac agtgggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa

540

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa

578

&lt;210&gt; 4832

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4832

Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu

1

Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

1

5

10

15

			20					25					30			
Pro	His	Phe	Asn	Lys	His	Leu	Leu	Gly	Ala	Glu	His	Gly	Asp	Glu	Pro	
		35					40					45				
Arg	His	Gly	Gly	Leu	Thr	Leu	Arg	Leu	Gly	Leu	His	Gln	Gln	Ser	Val	
	50					55					60					
Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp	
65					70					75					80	
Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser	
			85						90					95		
Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys								
			100					105								

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<210> 4833
<211> 872
<212> DNA
<213> Homo sapiens
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<400> 4833
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ctttgagaag gaactgagta ggcagtgaga agagtcgagt gaagcctggc ccgtgagtg
120
ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct
180
gaactatatc ctgggttcca gaaaaggcag aggttcttac cgaaagcagg ggaggaagcc
240
gcagcccaag gaggtcgtca cttgccggga aggtggctcg ggccaggctg cactcaaaac
300
ccgtgctctg tccacactgc tacggggcca gagccaagga agcttccact tcttcccca
360
gacagcccca acagcggcta cccaaggag ccagcagcct tgtgtcctgg gatccccagc
420
ccctgcagaa tgaccacca ggatctgagc atcacagcca aactcatcaa tggaggtgta
480
gcaggggctcg tgggggtgac ctgctgttcc cccatcgact tggccaagac tcgctcgag
540
aaccagcatg ggaaagccat gtacaaagga atgacgact gcctgatgaa gacggctcgg
600
gcggagggct tcttcggcat gtaccgaggg gctgcagtga acctcactct ggtcactcca
660
gagaaggcca tcaagctggc ggccaacgac tttttccggc ggctgctcat ggaagatggg
720
atgcagcgga acctgaagat ggagatgctt gccgggtgtg gggctgggat gtgccaggtc
780
gtggtgacct gtcccatgga aatgctcaag attcagctgc aggcagctg gacgcctggc
840
cgtccatcat cagggtcctg cctcagcacc ct
872

```

```
<210> 4834
<211> 147
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 4834

```

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
 20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
 35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
 50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
 85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
 100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
 115          120          125
Gln Leu Gln Ala Cys Trp Thr Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
 130          135          140
Leu Ser Thr
145

```

&lt;210&gt; 4835

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

```

nctcatttcc gaagtgcctt gacagcccac cctgtgcgtg accctgtgca catgtaccag
60
ctgcacaaag ctttcgcccc agctgaactg gaacgcacgt accaggagat ccaggagtta
120
cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
cccgtgggta ttccagcacc atcccgcccc gcctcccgtt ttgagggtgct gcgctgggac
240
tacttcacgg agcagcacgc tttctcctgc gccgatggct caccctgctg cccactgcgt
300
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360
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420
gatccggccc ggggtatgga atacacgctg gacttgcagc tggaggcact gacccccag
480
ggaggccgcc ggcccctcac tcgccgagtg cagctgctcc ggccgctgag ccgcgtggag
540
atcttgcttg tgccctatgt cactgaggcc tcacgtctca ctgtgctgct gcctctagct
600
gaggctgagc gtgacctggc ccctggcttc ttggaggcct ttgccactgc agcactggag
660
cctgggtgatg ctgcggcagc cctgacctg ctgctactgt atgagccgcg ccaggcccag
720
cgcgtagggc atgcagatgt cttcgcacct gtcaaggccc acgtggcaga gctggagcgg
780

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cgtttcccccgtgccccgggtgccatggctc agtgtgcaga cagccgcacc ctcaccactg  
 840  
 cgccctcatgg atctactctc caagaagcac ccgctggaca cactgttctc gctggccggg  
 900  
 ccagacacgg tgctcacgcc tgacttcctg aaccgctgcc gcacgcatgc catctccggc  
 960  
 tggcaggcct tctttcccat gcatttccaa gccttcacc cagctgtggc cccaccacaa  
 1020  
 gggcctgggc cccagagct ggggcccgtga cactggccgc tttgatcgcc aggcagccag  
 1080  
 cgaggcctgc ttctacaact ccgactacgt ggcagcccggt gggcgccctgg gcgcagctca  
 1140  
 gaacaagaag aggagctgct ggagagcctg gatgtgtacg agctgttctc ccacttctcc  
 1200  
 agtctgcatg tgctgcgggc ggtggagcgg cgctgctgca gccgctaccg ggcccagacg  
 1260  
 tgcagcgcga ggctcagtga ggacctgtac caccgctgcc tccagagcgt gcttgagggc  
 1320  
 ctgggtccc gaaccagct ggccatgcta ctctttgaac aggagcaggg caacagcacc  
 1380  
 tgacccacc ctgtcccggt gggcccgtgg cattggccac accccacccc acttctcccc  
 1440  
 caaaaccaga gccacctgcc agcctcgctg ggcagggctg gccgtagcca gacccaagc  
 1500  
 tggcccactg gtcccctctc tggctctgtg ggtccctggg ctctggacaa gcactggggg  
 1560  
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 1740  
 gggggcatct cccaacttct cccttttga ccctgccgaa gctccctgcc ttaataaac  
 1800  
 tggccaagtg tggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1846

&lt;210&gt; 4836

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4836

Xaa	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro	Val
1				5					10					15	
His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20				25					30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
	35					40					45				
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50				55					60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70				75				80			
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg



					85					90					95	
Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp	Val	Ala	Asp	Val	Leu	Gly	
				100					105				110			
Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr	His	Pro	Ala	Leu	Arg	Leu	
				115				120				125				
Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg	Arg	Phe	Asp	Pro	Ala	Arg	
				130			135				140					
Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Gln	Leu	Glu	Ala	Leu	Thr	Pro	Gln	
145					150					155					160	
Gly	Gly	Arg	Arg	Pro	Leu	Thr	Arg	Arg	Val	Gln	Leu	Leu	Arg	Pro	Leu	
				165					170					175		
Ser	Arg	Val	Glu	Ile	Leu	Pro	Val	Pro	Tyr	Val	Thr	Glu	Ala	Ser	Arg	
				180				185				190				
Leu	Thr	Val	Leu	Leu	Pro	Leu	Ala	Ala	Ala	Glu	Arg	Asp	Leu	Ala	Pro	
				195			200					205				
Gly	Phe	Leu	Glu	Ala	Phe	Ala	Thr	Ala	Ala	Leu	Glu	Pro	Gly	Asp	Ala	
	210					215					220					
Ala	Ala	Ala	Leu	Thr	Leu	Leu	Leu	Leu	Tyr	Glu	Pro	Arg	Gln	Ala	Gln	
225					230					235					240	
Arg	Val	Ala	His	Ala	Asp	Val	Phe	Ala	Pro	Val	Lys	Ala	His	Val	Ala	
				245					250					255		
Glu	Leu	Glu	Arg	Arg	Phe	Pro	Gly	Ala	Arg	Val	Pro	Trp	Leu	Ser	Val	
				260				265					270			
Gln	Thr	Ala	Ala	Pro	Ser	Pro	Leu	Arg	Leu	Met	Asp	Leu	Leu	Ser	Lys	
				275			280					285				
Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu	Ala	Gly	Pro	Asp	Thr	Val	
	290					295					300					
Leu	Thr	Pro	Asp	Phe	Leu	Asn	Arg	Cys	Arg	Met	His	Ala	Ile	Ser	Gly	
305				310						315					320	
Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln	Ala	Phe	His	Pro	Ala	Val	
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&lt;211&gt; 1313

&lt;212&gt; DNA

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&lt;400&gt; 4839

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&lt;400&gt; 4842

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His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
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&lt;211&gt; 6403

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4843

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&lt;211&gt; 1675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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Gln	Thr	Ile	Thr	Asp	Asp	Val	Glu	Val	Asn	Ser	Tyr	Leu	Ser	Leu	Pro
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Asp	Asp	Glu	Glu	Glu	Asp	Glu	Glu	Ile	Asp	Arg	Thr	Asp	Pro	Leu	Gln
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Ala	Phe	Ala	Asn	Met	Thr	Met	Ser	Val	Arg	Arg	Glu	Leu	Cys	Ser	Val
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Tyr	Trp	Arg	Ile	Leu	Asn	His	Val	Glu	Lys	Asn	Thr	His	Lys	Val	Glu
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Leu	Ile	Met	His	Leu	Ile	Glu	Glu	His	Ser	Ile	Val	Asp	Pro	Thr	Tyr
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Gln Asn Phe Glu Asn Ile Thr Phe Met Lys Ala Val Glu Ile Leu Arg		655
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Lys Glu Leu Leu Phe Arg Thr Glu Gln Glu Lys Ser Gly Val Pro His		685
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	805	810
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	820	825
Gln Gln Ser Cys Tyr Ile Ile Ile Ser Lys Asp Thr Thr Ala Lys Glu		830
	835	840
Val Val Phe His Ala Val His Glu Phe Gly Leu Thr Gly Ala Ser Asp		845
	850	855
Thr Tyr Ser Leu Cys Glu Val Ser Val Thr Pro Glu Gly Val Ile Lys		860
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Gln Arg Arg Leu Pro Asp Gln Phe Ser Lys Leu Ala Asp Arg Ile Gln		880
	885	890
Leu Asn Gly Arg Tyr Tyr Leu Lys Asn Asn Met Glu Thr Glu Thr Leu		895
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Met Leu Gln Leu Ser Thr Ile Glu Val Ala Thr Gln Leu Ser Met Arg		925
	930	935
Asp Phe Asp Leu Phe Arg Asn Ile Glu Pro Thr Glu Tyr Ile Asp Asp		940
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&lt;211&gt; 3286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4845

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&lt;211&gt; 626

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4846

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 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 4848  
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 50 55 60  
 Met Lys Lys Tyr Ala Glu Thr Phe Leu Glu Pro Trp Phe Lys Ala Pro  
 65 70 75 80  
 Asn Lys Gly Thr Phe Gln Ile Val Tyr Lys Ser Arg Asn Asn Ser His  
 85 90 95  
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 Val Val Glu Ile Ile Lys Ala Val Cys Cys Leu Ser Val Val Lys Asp  
 130 135 140  
 Tyr Met Leu Phe Arg Lys Tyr Asn Leu Gln Glu Val Val Lys Ser Pro  
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 165 170 175  
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 <213> Homo sapiens

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<210> 4850

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4850

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			20				25					30			
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
		35				40					45				
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
	50				55					60					
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met						
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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 180  
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 300  
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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20				25						30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
			35				40						45		
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
			50				55					60			
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
					70					75					80
Arg	Asp	Leu	Gln	Gln	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu	
			85					90					95		
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
			115				120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
			130				135					140			
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
				150						155				160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
			165					170					175		
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
			180					185					190		
Ala	Arg	Lys	Glu	Asn	Ser	Met	Asp	Thr	Ala	Ser	Gln	Ala	Ile	Lys	
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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&lt;210&gt; 4854

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4854

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Glu Asn Pro Glu Gln Val Ala Ser Glu Gly Leu Pro Glu Pro Val Leu			
	35	40	45
Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala			
	50	55	60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala			
65	70	75	80
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu			
	85	90	95
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala			
	100	105	110
Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa			
	115	120	125
Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser			
	130	135	140
Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser			
145	150	155	160
Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val			
	165	170	175
Ala Leu Thr Val Lys Leu Ala Gln Asp Asp Leu His Ile Met Asp Ser			
	180	185	190
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His			
	195	200	205
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu			
	210	215	220
Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe			
225	230	235	240
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His			
	245	250	255
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys			
	260	265	270
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu			
	275	280	285
Pro Tyr Ser Asp Phe Pro Arg Pro Leu Pro His Ala Thr Gln Gly Pro			
	290	295	300
Ala Ala Thr Pro Tyr His Cys			
305	310		

&lt;210&gt; 4855

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4855

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240

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<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
		20					25					30			
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
		35				40					45				
Thr	Thr	Gly	Leu	Phe	Gly	Gly	Thr	Gln	Asn	Lys	Gly	Phe	Gly	Phe	Gly
	50				55					60					
Thr	Gly	Phe	Gly	Thr	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly
65				70					75					80	
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
			85					90					95		
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
		100					105						110		
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
		115					120					125			
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
	130					135					140				
Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
145				150					155					160	
Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
			165					170						175	
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
		180					185					190			
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
		195					200					205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
	210					215						220			
Thr	Val	Asn	Val	Glu	Gly	Thr	Lys	Thr	Leu	Pro	Asp	Asp			



225

230

235

&lt;210&gt; 4857

&lt;211&gt; 2887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4857

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2887

&lt;210&gt; 4858

<211> 269  
 <212> PRT  
 <213> Homo sapiens

<400> 4858  
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 Ile Leu Leu Leu Gln Leu Asp Leu Ile Glu Gln Gln Gln Gln Leu  
 35 40 45  
 Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr  
 50 55 60  
 Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys  
 65 70 75 80  
 Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr  
 85 90 95  
 Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys  
 100 105 110  
 Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe  
 115 120 125  
 Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly  
 130 135 140  
 Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser  
 145 150 155 160  
 Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro  
 165 170 175  
 Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln  
 180 185 190  
 Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu  
 195 200 205  
 Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe  
 210 215 220  
 Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr  
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 Ser Ser Pro Lys Lys Glu Glu Thr Val Ala Ser Lys Ala  
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<210> 4859  
 <211> 689  
 <212> DNA  
 <213> Homo sapiens

<400> 4859  
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 540  
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 689

<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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			20					25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40					45			
Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
	50					55					60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65					70				75						80
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
			85						90					95	
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			100					105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
		115					120						125		
His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130					135					140				
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
145					150					155					160
Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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600  
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720  
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1622

<210> 4862  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 4862  
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 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp  
 35 40 45  
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu  
 50 55 60  
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg  
 65 70 75 80  
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala  
 85 90 95  
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly  
 100 105 110  
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu  
 115 120 125  
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val  
 130 135 140  
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg  
 145 150 155 160  
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe  
 165 170 175  
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu  
 180 185 190  
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys  
 195 200 205  
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu  
 210 215 220  
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu  
 225 230 235 240  
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly  
 245 250 255  
 Thr Val Lys Gln  
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<210> 4863  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 4863  
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 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtcg ggggcgtcac ccagctgggc  
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<210> 4864  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4864  
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 20 25 30  
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr  
 35 40 45  
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu  
 50 55 60  
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly  
 65 70 75 80  
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly  
 85 90 95  
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly  
 100 105 110  
 Leu Glu His Asp Gly Ala  
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<210> 4865  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4865  
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 180  
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<210> 4866

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 4866  
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 20 25 30  
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr  
 35 40 45  
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys  
 50 55 60  
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His  
 65 70 75 80  
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly  
 85 90 95  
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His  
 100 105 110  
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser  
 115 120 125  
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys  
 130 135 140  
 Pro Phe Thr Arg  
 145

<210> 4867  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 4867  
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 120  
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagccca  
 180  
 gagacagccc cagggggtgc tgcctggaga cagccgggat agcttcagtc tcctgacct  
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 gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa  
 300  
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 391

<210> 4868  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 4868  
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser



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Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20           25           30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35           40           45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50           55           60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65           70           75           80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85           90           95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100          105          110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115          120          125

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&lt;210&gt; 4869

&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4869

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caggactgca cggactgcct ggggaggggt ctttggcccc cgggttcctg cagggggggt
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418

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&lt;210&gt; 4870

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
      1           5           10           15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20           25           30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35           40           45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50           55           60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65           70           75           80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

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tccgcttcac ctcccacca caggttcaag cctcctcagt atctgagaaa ggcgcggaagc  
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 1354

<210> 4872  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4872  
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 20 25 30  
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro  
 35 40 45  
 Val Pro Ala Pro Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala  
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 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His  
 65 70 75 80  
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu  
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<210> 4873  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 4873  
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 660  
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 720

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 840  
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55				60					
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65					70					75				80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85						90					95	
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100					105					110		
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
		115					120						125		

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 aaaatacttt gcagctgggtg agaaatatca tacctcctct gtcttccaca aagcaciaag  
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 420  
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 540  
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 600  
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 660  
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 aatgggtcca gccctctcct ggtggccgcg tttggcgctt gctctctcac caggcagtgc  
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 1255

&lt;210&gt; 4876

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4876

Leu	Ala	Trp	Val	Glu	Met	Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn
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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
			35				40					45			
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
			50			55					60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65					70				75					80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
			85				90						95		
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
			100				105						110		
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
			115				120					125			
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
			130			135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
145				150					155					160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

[illegible]

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<210> 4877
<211> 1182
<212> DNA
<213> Homo sapiens
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<400> 4877
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120
gttcaatgaa tgcgtgcgga atgaatgaac gactctagtg aaagagactc caatgacgca
180
ggccgggatt tgcggacacg agccccgcgc cgcaagcat tctggggatt gtagtttctc
240
cgtgacgcgg tgactcgcag agcactgacg cactctgcgc ccggaggaca gagcggccccg
300
gtcgcgggca tggttttctc gtctctgtgc agccggcggg aggcagccag tccaggcgcc
360
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420
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480
agcctgatca tcctactgca gggcctccag ggccgggtaa ccactgtgga cctgcgggat
540
gagagcgtgg ccacgcgacg catagacaat gtcgatgctt tcatgaacat ccgcctggcc
600
aaagtacact acacggaccg ttgggggcat cagggtcaagc tggatgacct ctttgtgaca
660
ggccgcgaat tccgctacgt ccacatccca gatgacgtga acatcacctc gaccattgag
720
cagcagctgc agattatcca tcgggtgcga aacttttggtg gcaagggcca aggcgggtgg
780
gaatttcccc caaaaaaact gtaagtgagg ccctcagcaa gccctggccc caactcgagg
840
tcctccagtg atctccggag ctagtccctt gccctcacac cctgtctggt acccgagaag
900
aaagcagggc caggccagaa gctggtgtcc aacagacacc acctgtcaaa gctgccttc
960
acagggttcc acctcccaga ctactctgg gaccagaaat cctatatgtg gccttggggg
1020
aggtgacaat cccctttttt gatgatctga atctctgact tattgattat ggaacctgtc
1080
aagttagttt caactctccc agtgaggata attaaacatg ctcagcctga gccacctcta
1140

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agtggtctcca tttctcatgc agttgtgttc attttctcat ga  
1182

<210> 4878  
<211> 122  
<212> PRT  
<213> Homo sapiens

<400> 4878  
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1 5 10 15  
Leu Ile Ile Leu Leu Gln Gly Leu Gln Gly Arg Val Thr Thr Val Asp  
20 25 30  
Leu Arg Asp Glu Ser Val Ala His Gly Arg Ile Asp Asn Val Asp Ala  
35 40 45  
Phe Met Asn Ile Arg Leu Ala Lys Val Thr Tyr Thr Asp Arg Trp Gly  
50 55 60  
His Gln Val Lys Leu Asp Asp Leu Phe Val Thr Gly Arg Asn Val Arg  
65 70 75 80  
Tyr Val His Ile Pro Asp Asp Val Asn Ile Thr Ser Thr Ile Glu Gln  
85 90 95  
Gln Leu Gln Ile Ile His Arg Val Arg Asn Phe Gly Gly Lys Gly Gln  
100 105 110  
Gly Arg Trp Glu Phe Pro Pro Lys Lys Leu  
115 120

<210> 4879  
<211> 1941  
<212> DNA  
<213> Homo sapiens

<400> 4879  
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120  
gctgggcttg gaggatgcct ctccgaccca ctgatgctgg gggcgagga ctcggtcaag  
180  
ggaggggcaa gaggaggagg agagcctgcc gttccaactt gccatcaga gaccggaca  
240  
cggcctggtg tgtggcttgc tgcctgggag ggatgcacag ggcctcctga gggacaggat  
300  
ggacctggtc agaggacggt tgctgtcctc atttgcttcc caagaagagc atgtcctccc  
360  
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420  
tctcatgaca tccgtggagc ttgcgaggca gcgtggactg gtgactgtga aggaaggccc  
480  
ccgtggtaga atgagctgga gcacgtctta agagagatgc ctgcttctta aagatctaca  
540  
gcaatctggg acgtggttca agttcaagac ttgaaggaag caaagacgcc ctgcatgggt  
600  
acaatggctc aggtgtcagg ggaggccgga gggtttccag catttgctc atgccagcac  
660

ctttgaaccg gtctcttaga agaagacaca catcctgggt gtacagtggg gaaatgggga  
 720  
 gtgggtgccc attctgaaaa acgaggcatt cctgetcatt ccctctgctt agctgggtggg  
 780  
 caggggagag agggaaatgc caaaaacttg gagtgaagga tgatgctatt ttttattttt  
 840  
 aaatatatct tcagggttatt ttcttactgt tgcttcagat ctaatgtaaa aggcagatgt  
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 1140  
 ctctacgatg gccatttgcct cattgtcttt cctctgtgtg tagtgagtga ccctggcagt  
 1200  
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 caggactgtg gtgacaactc tggtcagggtg tgatttgaca tgagggccgg aggcgggttg  
 1320  
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 1380  
 aggcagatct gggcactttc ccaaccaggg tttatgcgtc tccagggag cctcgggtgc  
 1440  
 agagtgggtg gcagatctga ccatccccac agaccagaaa caaggaattt ctgggattac  
 1500  
 ccagtccccc ttcaaccag ttgatgtaac cacctcattt ttacaaata cagaatctat  
 1560  
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 1620  
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 1680  
 aatcgatgcc acggattgca ggccaaattt cagatcgtgt ttccaaacac ccttgcgtg  
 1740  
 ccctttaatg ggattgaaag cacttttacc acatggagaa atatattttt aatttgtgat  
 1800  
 gcttttctac aagggtccact atttctgagt ttaatgtgtt tccaacactt aaggagactc  
 1860  
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 1920  
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 1941

<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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His	Lys	Pro	Gly	Leu	Gly	Lys	Cys	Pro	Asp	Leu	Pro	Gly	Gly	His	Thr



				20					25					30		
Ser	Leu	Ala	Ala	Ser	Ala	Gly	His	Ala	Ala	Ser	Pro	Val	Leu	Pro	Ser	
		35					40					45				
Ala	Thr	Ala	Ser	Gly	Pro	His	Val	Lys	Ser	His	Leu	Thr	Arg	Val	Val	
		50				55					60					
Thr	Thr	Val	Leu	Phe	Trp	Gly	Phe	Ser	Lys	Ala	Ser	Pro	Val	Val	Leu	
65					70					75					80	
Arg	Gly	His	Ser	Glu	Gln	Ala	Asn	Thr	Ala	Arg	Val	Thr	His	Tyr	Thr	
				85						90				95		
Gln	Arg	Lys	Asp	Asn	Glu	Gln	Met	Ala	Ile	Val	Glu	Asn	Ser	Val	Val	
			100					105					110			
Cys	Phe	Ser	Asn	Ala	Thr	Tyr	Phe	Ser	Arg	Gln	Val	Ile	Leu	Pro	Met	
		115						120				125				
Met	Thr	Ser	Ala	Thr	Lys	Leu	Arg	Ala	Arg	Gly	Leu	Pro	Met	Arg	Leu	
		130				135						140				
Val	Glu	Ser	Asn	His	Val	Cys	Ser	Glu	Ala	Ser	Gly	Pro	Ser	Arg	Pro	
145					150					155					160	
Cys	His	Arg	Pro	Glu	His	Arg	Thr	Val	Ile	Met	Gln	Arg	Ala	Val	Thr	
				165						170				175		
Glu	Ala	Gly	Val	Ser	Val	Gly	Gly	Gly	Glu	Glu	Gly	Thr	Ser	Ala	Phe	
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<210> 4881
<211> 1333
<212> DNA
<213> Homo sapiens
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120
ctaggttttt gatacatgac gcagcaactg atgaacctgg caggaggcgc agtgggtgctg
180
gccttggagg gtggccatga cctcacagcc atctgtgacg cctctgaggc ctgtgtggct
240
gctcttctgg gtaacagggt gagccgtctc cctcccccac ccatgcttct gtcaggcagg
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360
ggccaagcct gaaacaagggt aggcgaagcg aaagcctctg ttccaagtta ggtccaggca
420
gcatctcctg gcctaggtag agtgtgcttg tggctagaag gctggggccc ctgggggtggg
480
agtgagctgg gcctgtgggt ccctgaaaga ctgggtggctg atgtactgtt ttctataggt
540
ggatccgggt tgaggaagaa gctggaagaa gaaacccaac ctcaatgcc a tccgctctct
600
ggaggccgtg atccgggtgc acagtaagtg tggagatggg acactcgctg agctcagact
660
gaaggatctt ggtggtacct tgccccaccg tggccagatc ctaggggcttc cgggtgccagc
720

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caggtagacct gctgttggtc tggagtaaga ttctgtgtgag tgaccaggc agcaatggta  
 780  
 aatactgggg ctgcatgcag cgcctggcct cctgtccaga ctctgggtg cctagagtgc  
 840  
 caggggctga caaagaagaa gtggaggcag tgaccgcact ggcgtccctc tctgtgggca  
 900  
 tcctggctga agataggtaa tgccagacnc tgggccctgg gccgcagcc tctccaccgc  
 960  
 ttcattcctc cctgcttgaa gaccccggtt ccgctatgca gccaccccaa ccctcccagg  
 1020  
 ctctcctgacc aggggttgaga ggaagcttag ctaaggccct tgctgcagcc ctggtgctcc  
 1080  
 agcatccac ccttgtccct cccacaggc cctcgagca gctggtggag gaggaagaac  
 1140  
 ctatgaatct ctaaggtctt ggaaccatct gccgcccac catgcccttg ggacctggtt  
 1200  
 ctcttctaac ccctggcaat agccccatt cctgggtctt tagagatcct gtgggcaagt  
 1260  
 agttggaacc agagaacagc ctgctgtctt tgacagttat cccagggagc gtgagaaaa  
 1320  
 ccctgggtctt aga  
 1333

<210> 4882  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 4882  
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 20 25 30  
 Leu Pro Phe Leu Pro Ser Gln Pro Leu Gly Phe Gly Tyr Met Thr Gln  
 35 40 45  
 Gln Leu Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly  
 50 55 60  
 Gly His Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala  
 65 70 75 80  
 Ala Leu Leu Gly Asn Arg Val Ser Arg Leu Pro Pro Pro Ser Met Leu  
 85 90 95  
 Leu Ser Gly Arg  
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<210> 4883  
 <211> 1371  
 <212> DNA  
 <213> Homo sapiens

<400> 4883  
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 120

cgcttcctga aaaaaacaaa acaaaagctg accgtatgtc ctatcatcaa tggggaagac  
 180  
 caccttcggt tgttgaactt tcaacacaat tttataactc ggatacaaaa tatttcta  
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 300  
 tcgactctga gatgtcttcg tgtccttctg ttggggaaaa acagaatcaa gaaaatctca  
 360  
 aatctggaga atctaaaaag cttagatgtc ttggatcttc atggaaatca gattacccaa  
 420  
 attgaaaata ttaatcattt gtgtgagttg agagttttta atcttgccag gaacttttta  
 480  
 agtcagtgtg ataatcttaa tgggctggat tcactaactg aacttaactt gcgacacaat  
 540  
 caaatcactt tcgtgagaga tgtggataat ttgccctgcc tccaacatct ttttctcage  
 600  
 tttacaata tatctagttt tgacagtgtt tctgccttg ctgactcttc ttccctctcg  
 660  
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 720  
 cagaatatga tgcagctcg cagctagat atgaagagaa tcacggaaga agaaaggcgt  
 780  
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 1080  
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 1140  
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 1200  
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 1371

<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
			20				25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35						40					45			

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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
 50          55          60
Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
 100        105        110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
 115        120        125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
 130        135        140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145        150        155        160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165        170        175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
      180        185        190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
 195        200        205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
 210        215        220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225        230        235        240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
      245        250        255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
 260        265        270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
 275        280        285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
 290        295        300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305        310        315        320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
      325        330        335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
 340        345        350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
 355        360        365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
 370        375        380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
385        390        395        400
Phe Asn Ala Leu Ala Gln Leu Arg Arg Tyr
      405        410

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&lt;210&gt; 4885

&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4885

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 120  
 agagaactgg accttgctca gagagtcttg tacagggatg taatgctgga gaactatagg  
 180  
 aacctggctc ccttggtagg atttccattt tccaaacctg gtatcatctc ctagttggaa  
 240  
 gaagtggtaa gccacgaac acaaatgcag gagggagagg tgccaagaag cagcggatca  
 300  
 cgagaaagac agggctggag accagtctgc tgatagtgc cccaaccag aaaagtctat  
 360  
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 420  
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 489

<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20				25						30		
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
			35				40					45			
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
			50				55				60				
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ser				
65					70					75					

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 120  
 acttcactgt agtttattat ccctgacctt ccacaatgtg attaccaacc gctaggatga  
 180  
 gttgcatctt attataaagt agcaaattac aagattgtaa ctagactt ttttaagaaa  
 240  
 tccagtcagc ttttatacta atccatctta atttctaggt tactcagaat tccaggatatt  
 300  
 ctgatttgga ctcacatctc gtattgtatt gcctgtattt aactaggaag ttactgccaa  
 360

cagcatctat ctctattaaa tgtagaggaa ttgacaaaag aggggaaaga aagttgtag  
420  
gtaatagaac tgcttcagaa atagggctat tcatgtttga agtgtttctc cttcgttttt  
480  
cagggcatct cattgggaga tattcctctt ccaggcagta tcagtgatgg catgaattct  
540  
tcagcacatt atcatgtaaa cttcagccag gctataagtc aggatgtgaa tcttcatgag  
600  
gccatcttgc tttgtcccaa caatacattt agaagagatc caacagcaag gacttcacag  
660  
tcacaagaac catttctgca gttaaattct cataccacca atcctgagca aacccttctt  
720  
ggaactaatt tgacaggatt tctttcaccg gttgacaatc atatgaggaa tctaacaagc  
780  
caagacctac tgtatgacct tgacataaat atatttgatg agataaactt aatgtcattg  
840  
gccacagaag acaactttga tccaatcgat gtttctcagc tttttgatga accagattct  
900  
gattctggcc tttctttaga ttcaagtcac aataatacct ctgtcatcaa gtctaattcc  
960  
tctcactctg tgtgtgatga aggtgctata ggttattgca ctgaccatga atctagtctc  
1020  
catcatgact tagaagggtc tgtaggtggc tactaccagc aaccagtaa gctttgtcac  
1080  
ttggatcaaa gtgattctga tttccatgga gatcttacat ttcaacacgt atttcataac  
1140  
cacacttacc acttacagcc aactgcacca gaatctactt ctgacncttt tccgnntgct  
1200  
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<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
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 <213> Homo sapiens

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 <213> Homo sapiens

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&lt;210&gt; 4891

&lt;211&gt; 1998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4891

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&lt;210&gt; 4892

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4892

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Ile	Arg	Asp	Leu	Ala	Ala
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Lys	Leu	Glu	Glu	Leu	Lys
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&lt;210&gt; 4893

&lt;211&gt; 5212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4893

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&lt;210&gt; 4894

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

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			20					25					30		
Pro	Ser	Ala	Arg	Ala	Arg	Pro	Arg	His	Lys	Ser	Leu	Asn	Ile	Lys	Asp
		35					40					45			
Lys	Ile	Ser	Glu	Trp	Glu	Gly	Lys	Lys	Glu	Val	Pro	Thr	Pro	Ala	Pro
	50					55				60					
Ser	Arg	Arg	Ala	Asp	Gly	Gln	Glu	Asp	Tyr	Leu	Pro	Ser	Ser	Thr	Val
65					70					75				80	
Glu	Arg	Arg	Ser	Ser	Asp	Gly	Val	Arg	Thr	Gln	Val	Thr	Glu	Ala	Lys
			85						90					95	
Asn	Gly	Met	Arg	Pro	Gly	Thr	Glu	Ser	Thr	Glu	Lys	Glu	Arg	Asn	Lys
		100					105						110		
Gly	Ala	Val	Asn	Val	Gly	Gly	Gln	Asp	Pro	Glu	Pro	Gly	Gln	Asp	Leu

115				120				125							
Ser	Gln	Pro	Glu	Arg	Glu	Val	Asp	Pro	Ser	Trp	Gly	Arg	Gly	Arg	Glu
130							135				140				
Pro	Arg	Leu	Gly	Lys	Leu	Arg	Phe	Gln	Asn	Asp	His	Leu	Ser	Val	Leu
145					150					155					160
Lys	Gln	Val	Lys	Lys	Leu	Glu	Gln	Ala	Leu	Lys	Asp	Gly	Ser	Ala	Gly
				165					170					175	
Leu	Asp	Pro	Gln	Leu	Pro	Gly	Thr	Cys	Tyr	Ser	Pro	His	Cys	Pro	Pro
			180					185					190		
Asp	Lys	Ala	Glu	Ala	Gly	Ser	Thr	Leu	Pro	Glu	Asn	Leu	Gly	Gly	Gly
	195						200					205			
Ser	Gly	Ser	Glu	Val	Ser	Gln	Arg	Val	His	Pro	Ser	Asp	Leu	Glu	Gly
210						215					220				
Arg	Glu	Pro	Thr	Pro	Glu	Leu	Val	Glu	Asp	Arg	Lys	Gly	Ser	Cys	Arg
225					230					235					240
Arg	Pro	Trp	Asp	Arg	Ser	Leu	Glu	Asn	Val	Tyr	Arg	Gly	Ser	Glu	Gly
				245					250					255	
Ser	Pro	Thr	Lys	Pro	Phe	Ile	Asn	Pro	Leu	Pro	Lys	Pro	Arg	Arg	Thr
			260					265					270		
Phe	Lys	His	Ala	Gly	Glu	Gly	Asp	Lys	Asp	Gly	Lys	Pro	Gly	Ile	Gly
	275						280					285			
Phe	Arg	Lys	Glu	Lys	Arg	Asn	Leu	Pro	Pro	Leu	Pro	Ser	Leu	Pro	Pro
290						295					300				
Pro	Pro	Leu	Pro	Ser	Ser	Pro	Pro	Pro	Ser	Ser	Val	Asn	Arg	Arg	Leu
305					310					315					320
Trp	Thr	Gly	Arg	Gln	Lys	Ser	Ser	Ala	Asp	His	Arg	Lys	Ser	Tyr	Glu
				325					330					335	
Phe	Glu	Asp	Leu	Leu	Gln	Ser	Ser	Ser	Glu	Ser	Ser	Arg	Val	Asp	Trp
			340					345					350		
Tyr	Ala	Gln	Thr	Lys	Leu	Gly	Leu	Thr	Arg	Thr	Leu	Ser	Glu	Glu	Asn
	355						360					365			
Val	Tyr	Glu	Asp	Ile	Leu	Asp	Pro	Pro	Met	Lys	Glu	Asn	Pro	Tyr	Glu
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Asp	Ile	Glu	Leu	His	Gly	Arg	Cys	Leu	Gly	Lys	Lys	Xaa	Val	Ser	
385					390					395					

&lt;210&gt; 4895

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

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60  
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120  
catcctgatt cagcaagtga gaaaaatcca gttacactct taaaggaatt gtcagtata  
180  
aagtctcgat atcaaaacttt gtatgcccgcc tttaaaccag ttgctgttga gcagaaagag  
240  
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300  
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360

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 420  
 gaaaggaaat tctaacagag aagagcttaa ttccggagaa atttaggaag atgtcttggt  
 480  
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 660  
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 720  
 ttttctaagt catgataata tagatgttct ggtctatcat aaaagaatgt ttatgtacat  
 780  
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 1080  
 ttccttc  
 1087

<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

Met	Glu	Ala	Glu	Val	Asp	Lys	Leu	Glu	Leu	Met	Phe	Gln	Lys	Ala	Glu
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Ser	Asp	Leu	Asp	Tyr	Ile	Gln	Tyr	Arg	Leu	Glu	Tyr	Glu	Ile	Lys	Thr
		20						25				30			
Asn	His	Pro	Asp	Ser	Ala	Ser	Glu	Lys	Asn	Pro	Val	Thr	Leu	Leu	Lys
		35					40				45				
Glu	Leu	Ser	Val	Ile	Lys	Ser	Arg	Tyr	Gln	Thr	Leu	Tyr	Ala	Arg	Phe
	50				55				60						
Lys	Pro	Val	Ala	Val	Glu	Gln	Lys	Glu	Ser	Lys	Ser	Arg	Ile	Cys	Ala
65				70				75					80		
Thr	Val	Lys	Lys	Thr	Met	Asn	Met	Ile	Gln	Lys	Leu	Gln	Lys	Gln	Thr
			85					90					95		
Asp	Leu	Glu	Val	Met	Leu	Ser	Val	Asp	Ser	Cys	His	His			
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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897



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120  
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300  
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360  
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420  
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480  
gaacctctgt atgttcagtt atctggaagc tctctgaatc cagtccccctt ggtttttatg  
540  
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600  
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720  
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780  
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840  
tacacacaca cacacgccac cacaagcca aaaaagaaga agtgatcatt tttctaagt  
900  
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960  
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1080  
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1200  
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1260  
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1320  
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1380  
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1560  
tttcttctca gtgccatgtg aagccactga agagttttaa tgagaaaagg gacataagtc  
1620

agctcctatt ttaggaggtg gcctctggct gtgtctaatt gagttgacaa gaataaaaagt  
 1680  
 agaaggagaa gaccaaggag gaggacgcca ggtgagagca ggtgggtggc agg  
 1733

<210> 4898  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 4898  
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 Gln Pro Leu Pro Leu Arg Phe Lys Gln Phe Ser Cys Phe Ser Leu Pro  
 20 25 30  
 Ser Ser Trp Asp Tyr Arg Arg Pro Pro Arg Cys Pro Ala Asn Phe Cys  
 35 40 45  
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln  
 50 55 60  
 Thr Pro Asp Xaa Thr Arg Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg  
 65 70 75 80  
 Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe  
 85 90

<210> 4899  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4899  
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 120  
 gtggcggctc tggaggcagc aacgggggtcc ttgggggtgg gtgggagttc tgctggattc  
 180  
 aggtggaggt gaacatctgc cgttcccaaca gccctgcgtg ccccccaaa tgctgctggc  
 240  
 ccacagaatc agccagtgcc acggcccccac cacagccagg cttggccctg tcagcggcca  
 300  
 gcatcccgag ggccagggtc cgagtgtcct caccaaggag gctcttggcg tcgctgtgcc  
 360  
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 420  
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 444

<210> 4900  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4900  
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		20					25					30		
Arg	Gln	Gln	Arg	Gly	Pro	Leu	Gly	Trp	Val	Gly	Val	Leu	Leu	Asp
		35					40					45		
Gly	Gly	Gly	Glu	His	Leu	Pro	Phe	Pro	Gln	Pro	Cys	Val	His	Pro
		50					55				60			
Met	Leu	Leu	Ala	His	Arg	Ile	Ser	Gln	Cys	His	Gly	Pro	Thr	Thr
					70					75				80
Arg	Leu	Gly	Pro	Val	Ser	Gly	Gln	His	Pro	Glu	Gly	Gln	Gly	Pro
					85				90			95		
Val	Leu	Thr	Lys	Glu	Ala	Leu	Gly	Val	Ala	Val	Pro	Ala	Pro	Met
			100				105					110		
Leu	Leu	Leu	Gly	Arg	Gly									

&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

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attcccagcc agaacggagc ttaagccggg caggcgatgc gaatgacgga gtagcgagct
120
gcacggcgcc gtgctgcgct gttgaggacg ctgtcccgcg cgctcccagg ccgccccgag
180
gcttggggtc ttcgaaggat aatcggcgcc cggggccgaa cagcgggggc acacggggcg
240
ctgccgaagt gcaaggccac ggccagagct cgagcccgcg gcgctgtctg gagtcttagg
300
ttggcgccgt ttggggtcgg ggtctgaggg ttgggcgctg cctggggcca gcggagatcg
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660
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720
tgggtgaagg aactgcgcag cctagaggag ggctgccaaa tctacttatg tggcaccaag
780
agtgcctgc tggaagaaga ccggaggcgt cgacgtgtgg acttccacga cgtccaggac
840
tatgcagaca gtagctgctc ctcagccctt tggggggtgg ggggtgtgtg ctgtctgggt
900
ggatcaaaga aaataggagc tgccttggtg gccagggcaa ggtgctctag gaggtcttcc
960

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tggcctcctt gaactgtggg gtccaggaga ctccctgaac tgctagccct cccttttgc  
 1020  
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 1080  
 agctctttga aacatccagc aagacaggcc agagtgtggg tgagtgtgtg gctggagcct  
 1140  
 cacagcagga acatgcaggg gcaccagagg aagctgaata gggcacagag ggctgggtca  
 1200  
 ctgggagatc ccagggctac tggcattggg ccctcgctga tcatcatttt tcttgccaga  
 1260  
 cgagctcttc cagaaagtgg cagaggatta cgtcagtgtg gctgccttcc aggtgatgac  
 1320  
 agaggacaag ggcgtggatc tggggccagaa gccaaacccc tacttctaca gctgttgtca  
 1380  
 tcactgagtc agcactcacc tggcctgggg gaattaaagg aattccccgt aagcgtggac  
 1440  
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 1500  
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 1520

&lt;210&gt; 4902

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4902

Met	Ser	Gly	Gln	Arg	Val	Asp	Val	Lys	Val	Val	Met	Leu	Gly	Lys	Glu
1			5					10					15		
Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
		20						25				30			
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50					55				60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65				70				75						80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
		85						90				95			
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
		100					105					110			
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
	115						120					125			
Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp	
130				135						140					
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145				150				155						160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
		165					170					175			
Ser	Arg	Arg	Ser	Ser	Trp	Pro	Pro								
			180												

&lt;210&gt; 4903

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

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 120  
 tcattattcc cacatccctt tccttactac ttgcctgcac ttcttgagaa aaagactgca  
 180  
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 240  
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 300  
 gctcagctgt acaaggagga agggaaccag cgctaccggg aagggaagta ccgagatgct  
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 420  
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 480  
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 540  
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 600  
 aatgccaaagg ccttgtatcg ggccggagtg gcctttttcc atctgcagga ctatgaccag  
 660  
 gcccgccact acctcctggc tgccgtgaat aggcagccta aagatgcca cgtccggcgg  
 720  
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 780  
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 840  
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 900  
 acccaggtgg atttttgttt ctagtctctg acaaacttca ctacttagac agtctgagtc  
 960  
 tttttctgtc tatccatctg tttatttcta tacctttcaa tacatgttat tgttgagat  
 1020  
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 1064

&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala  
 1 5 10 15  
 Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg  
 20 25 30  
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val  
 35 40 45  
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

```

      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

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<210> 4905  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

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<400> 4905
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120
tgcccggcgg tccagcgagg gtggcacgaa caggaggcct gccctgggc acagcacgct
180
taggggcagc gactgtgtct ggcagcgga gcggcgagg catgggctgg gtgtgccgag
240
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300
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360
gccggcgctt tttccgcct gcacaagctg gccgggctgg acatgacctc caaccgcctg
420
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480
tcgcccgcct ctgccctggt gctggccttt ggcggaacc ccctgcactg caactgcgag
540
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600
gctctgggag gccgc
615

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<210> 4906  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

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<400> 4906
Gly Gln Arg Leu Cys Leu Ala Ala Ala Ala Gly Thr Trp Ala Gly
1      5      10      15
Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
20     25     30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
35     40     45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
50     55     60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
65     70     75     80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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	85		90		95										
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn
	100				105								110		
Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Val	Trp	Leu	Arg	Arg	Leu	Ala	Arg
	115				120							125			
Glu	Asp	Asp	Leu	Glu	Ala	Cys	Ala	Ser	Pro	Pro	Ala	Leu	Gly	Gly	Arg
	130				135						140				

&lt;210&gt; 4907

&lt;211&gt; 1748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4907

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nntttttgct ggaaaataact ttttaattat gaacatgtta aaaataaaaa acagcagaag
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ccctgatatt acctcttttt cctcattttt tatactacct tttaaaataa agcaggaaat
120
gtggccagca gctggtcccg tctcttctgc cccaacagct gtatccacag gttgtgaggg
180
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240
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<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

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<211> 1960

<212> DNA

<213> Homo sapiens

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<210> 4910  
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<400> 4910

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 50              55              60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65              70              75              80
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85              90              95
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100              105              110
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115              120              125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
130              135              140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
145              150              155              160
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
165              170              175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
180              185              190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
195              200              205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
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Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
225              230              235              240
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245              250              255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
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Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
275              280              285
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325              330              335
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Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
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Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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 <212> DNA  
 <213> Homo sapiens

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<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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			20				25					30		Lys
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Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys
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Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala
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His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu
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Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val
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[illegible]

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<212> DNA
<213> Homo sapiens
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<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
65				70					75					80	
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
			85					90					95		
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
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Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
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Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
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Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
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Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly	Phe	Leu	Arg	Asn	Val	Val	Ser
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Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
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Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
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<212> DNA
<213> Homo sapiens
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480
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600
aagctgctct ggccactgtc cgcagaacgc cggatgcggg tgcaaaaga ctgcgtccag
660

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ggagcactgc ccacaggccg agccggggcc tcccgaaga ggaaggaggt gccctcaagg  
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 900  
 caggggccacc acagtgaag gtctcccctt cccagggcac gtaatcttcc aggtcagcca  
 960  
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 1020  
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<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

Met	Arg	Val	Gln	Lys	Asp	Cys	Val	Gln	Gly	Ala	Leu	Pro	Thr	Gly	Arg
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Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
		35					40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
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<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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 120  
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 180  
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 240  
 gatccccccc gcgcccggga cccctggccc cactgttggg ccagctcgcc gggctccggc  
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 360  
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 720  
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 780  
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 960  
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 1080  
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 1140  
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 1200  
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 1260  
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 1320  
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 1380  
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<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

Met	Gly	Pro	Ala	Ala	Arg	Pro	Ala	Leu	Arg	Ser	Pro	Pro	Pro	Pro	Pro
1				5					10					15	
Pro	Pro	Pro	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Pro	Leu
			20					25					30		
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
		35					40					45			
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
	50					55				60					
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

```

65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
      85          90          95
Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
      100         105         110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
      115         120         125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
      130         135         140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
      145         150         155         160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
      165         170         175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
      180         185         190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
      195         200         205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
      210         215         220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
      225         230         235         240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
      245         250         255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
      260         265         270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
      275         280         285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
      290         295         300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
      305         310         315         320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
      325         330         335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
      340         345

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&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

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120
gggcttcctc tcattgggtc aggcatacac ctgaccaagg tgccagctat tcaacagaaa
180
agaacgggtg cttttctaaa ccaatttgtg gtgcacactg tacagttcct caaccgcttt
240
tctacagttt gtgaggagaa actggcagac ctttcacttc gtatccaaca aattgaaaca
300
actctcaata ttttagatgc aaagtgtgca tctatcccag gcctagatga tgtcacagtt
360

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gaagtatctc ctttaaatgt caccagtgtc acaaattggag cacatcctga agccacttca  
 420  
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 480  
 gaaaatatct taactgtagc caaggatcca agatatgccca gatattctcaa aatgggttcaa  
 540  
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 600  
 cttcttgaga ggccagatgc tccagtgcct gatggcgaaa gtgagaaaac tgtagaagaa  
 660  
 agttcagata gcgaatcttc ttttagtgat taagcttaat ttgataaga attacatatg  
 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 tggcgacaag agtgaaactc tgtcttaaaa ataaaaagag atgcaatgag caatttttaa  
 1320  
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 1362

<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

Met	Asp	Glu	Asp	Gly	Leu	Pro	Leu	Met	Gly	Ser	Gly	Ile	Asp	Leu	Thr
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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
		20					25					30			
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
		35				40					45				
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
	50				55					60					
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65				70				75				80			
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
			85				90				95				
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

100					105					110					
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
115					120					125					
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
130					135					140					
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145					150					155					
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
165					170					175					
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
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Ser Asp															

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<210> 4921
<211> 1272
<212> DNA
<213> Homo sapiens
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120
tcttccccgt tgcccccttg gggcgggatg gctgcggaag aagaagacga ggtggagtgg
180
gtagtggaga gcatcgcggg gctcctgcga ggcccagact ggtccatccc catcttggac
240
tttgtggaac agaaatgtga agtttttgat gatgaagaag aaagcaaat gacctataca
300
gagattcatc aggaatacaa agaactagtt gaaaagctgt tagaaggtta cctcaaagaa
360
attggaatta atgaagatca atttcaagaa gcatgcactt ctctcttgc aaagacccat
420
acatcacagg ccattttgca acctgtgttg gcagcagaag attttactat ctttaaagca
480
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540
aatgtgtgat tacctgactg cttaaccgat ggctctgatg tggtcagtga cttgaacac
600
gaagagatga aaatcctgag ggaagttctt agaaaatcaa aagaggaata tgaccaggaa
660
gaagaaagga agaggaaaaa acagttatca gaggctaaaa cagaagagcc cacagtgcac
720
tccagtgaag ctgcaataat gaataattcc caaggggatg gtgaacattt tgcacaccca
780
ccctcagaag ttaaaatgca ttttgctaat cagtcaatag aacctttggg aagaaaagtg
840
gaaaggtctg aaacttcctc cctcccacaa aaaggcctga agattcctgg cttagagcat
900
gcgagcattg aaggaccaat agcaaactta tcagtacttg gaacagaaga acttcggcaa
960
cgagaacact atctcaagca gaagagagat aagttgatgt ccatgagaaa ggatatgagg
1020

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actaaacaga tacaaaatat ggagcagaaa ggaaaaccca ctggggaggt agaggaaatg  
 1080  
 acagagaaac cagaaatgac agcagaggag aagcaaacat tactaaagag gagattgctt  
 1140  
 gcagagaaac tcaaagaaga agttattaat aagtaataat taagaacaat ttaacaaaat  
 1200  
 ggaagttcaa attgtcttaa aaataaatta ttagtcctt acactgaaaa aaaaaaaaaa  
 1260  
 aaaaaataaa aa  
 1272

<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

Met	Ala	Ala	Glu	Glu	Asp	Glu	Val	Glu	Trp	Val	Val	Glu	Ser	Ile
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Ala	Gly	Leu	Leu	Arg	Gly	Pro	Asp	Trp	Ser	Ile	Pro	Ile	Leu	Asp
		20					25					30		Phe
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys
		35					40					45		Leu
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys
	50					55					60			Leu
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe
65					70				75					80
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala
			85						90				95	Ile
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala
		100						105					110	Met
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile
		115					120					125		Ile
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser
		130				135					140			Asp
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu
145					150					155				160
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys
			165					170					175	Arg
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His
		180						185					190	Ser
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His
		195					200					205		Phe
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser
	210					215					220			Ile
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu
225				230					235					240
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu
			245						250				255	Gly
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln
		260						265					270	Arg
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg
		275					280					285		Lys
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys
														Pro

290                      295                      300  
 Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu  
 305                      310                      315                      320  
 Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys  
                     325                      330                      335  
 Glu Glu Val Ile Asn Lys  
                     340

<210> 4923  
 <211> 765  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240  
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 300  
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 420  
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 480  
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 gccgcacctn ggagcgcgcc cagctgggct cggcgaggtc tgccgagccg aaactacaac  
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 720  
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<210> 4924  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

<400> 4924  
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 Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser  
                     20                      25                      30  
 Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Val Pro  
                     35                      40                      45  
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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      50      55      60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg
65      70      75      80
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser
      85      90      95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg
      100      105      110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly
      115      120      125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg
      130      135      140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser
145      150      155      160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala
      165      170      175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro
      180      185      190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser
      195      200      205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile
      210      215      220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser
225      230      235      240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val
      245      250      255

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&lt;210&gt; 4925

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

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120
agtgatgagg ccgaggacgc tgagctctat gatgaccttt actgcccagc atgtgacaaa
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240
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gatgaaaatc cattagatga caattctgag gaagaaatgg aagatgcacc aaaacaaaag
360
ctttctaaaa aaaa
374

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&lt;210&gt; 4926

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

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Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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1	5	10	15
Glu Phe Gly Asp Gly Ser Asp Glu Asn Glu Met Glu Glu His Glu Leu			
20	25	30	
Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu			
35	40	45	
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr			
50	55	60	
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met			
65	70	75	80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu Asn Phe Ser			
85	90	95	
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu			
100	105	110	
Met Glu Asp Ala Pro Lys Gln Lys Leu Ser Lys Lys			
115	120		

&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

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120
attcagttat ctggagcaga acaactagaa gctttgaaag cttttgtgga agcaatggta
180
aatgagaatg tcagtctcgt gatctcgcgg cagttgctga ctgatttttg cacacatctt
240
cctaacttgc ctgatagcac agccaaagaa atctatcact tcaccttgga aaagatccag
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cctagagtca tttcatttga ggagcaggtt gcttcataa gacagcatct tgcattctata
360
tatgagaaag aagaagattg gagaaatgca gcccaagtgt tgggtgggaat tcctttggaa
420
acaggacaaa aacagtacaa tgtagattat aaactggaga cttacttgaa gattgctagg
480
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
		35					40					45			
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
	50					55					60				
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
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Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
			85					90						95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105						110	
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
		115				120						125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
		130				135						140			
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
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Gly	Gly	Gly	Arg	Ala	Leu	Asn	Gly	Thr	Leu	Pro	Trp	Gln	Met	Lys	Leu
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<210> 4935  
<211> 1668  
<212> DNA  
<213> Homo sapiens

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<210> 4936  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

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 Gly Leu Leu Cys Val Cys Trp Ser Pro Asp Gly Lys Tyr Ile Val Thr  
 35 40 45  
 Gly Gly Glu Asp Asp Leu Val Thr Val Trp Ser Phe Val Asp Cys Arg  
 50 55 60  
 Val Ile Ala Arg Gly His Gly His Lys Ser Trp Val Ser Val Val Ala  
 65 70 75 80  
 Phe Asp Pro Tyr Thr Thr Ser Val Glu Glu Gly Asp Pro Met Glu Phe  
 85 90 95  
 Ser Gly Ser Asp Glu Asp Phe Gln Asp Leu Leu His Phe Gly Glu Ile  
 100 105 110  
 Glu Gln Ile Val His Ser Pro Gly Ser Pro Asn Gly Thr Leu Gln Thr  
 115 120 125  
 Ala Ala Pro Ser Val Thr Tyr Arg Phe Gly Ser Val Gly Gln Asp Thr  
 130 135 140  
 Gln Leu Cys Leu Trp Asp Leu Thr Glu Asp Ile Leu Phe Pro His Gln  
 145 150 155 160  
 Pro Leu Ser Arg Ala Arg Thr His Thr Asn Val Met Asn Ala Thr Ser  
 165 170 175  
 Pro Pro Ala Gly Ser Asn Gly Asn Ser Val Thr Thr Pro Gly Asn Ser  
 180 185 190  
 Val Pro Pro Pro Leu Pro Arg Ser Asn Ser Leu Pro His Ser Ala Val  
 195 200 205  
 Ser Asn Ala Gly Ser Lys Ser Ser Val Met Asp Gly Ala Ile Ala Ser  
 210 215 220  
 Gly Val Ser Lys Phe Ala Thr Leu Ser Leu His Asp Arg Lys Glu Arg  
 225 230 235 240  
 His His Glu Lys Asp His Lys Arg Asn His Ser Met Gly His Ile Ser  
 245 250 255  
 Ser Lys Ser Ser Asp Lys Leu Asn Leu Val Thr Lys Thr Lys Thr Asp  
 260 265 270  
 Pro Ala Lys Thr Leu Gly Thr Pro Leu Cys Pro Arg Met Glu Asp Val  
 275 280 285  
 Pro Leu Leu Glu Pro Leu Ile Cys Lys Lys Ile Ala His Glu Arg Leu  
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 Trp Ala Leu Tyr Lys Gln Arg Glu Ala Pro Glu Leu Val  
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<210> 4939  
 <211> 730  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
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 35 40 45  
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser  
 50 55 60  
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala  
 65 70 75 80  
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

	85		90		95										
Ser	Lys	Ala	Ser	Pro	Ala	Pro	Ala	Ala	Leu	Met	Cys	Gly	Thr	Thr	Ser
		100						105					110		
Pro	Pro	Ile	Ile	Pro	Ala	Ala	Thr	Glu	Pro	Val	Cys	Ala	Ser	Ser	Arg
		115					120					125			
Ser	Gly	Arg	Pro	Thr	Ala	Thr	Ala	Cys	Ser	Leu	Gln	Pro	Leu	Leu	Asp
	130					135					140				
Val	Leu	Ser	Ala	Ser	Ala	Ser	Ser	Ser	Ser	Val	Ser	Leu	Ala		
145					150					155					

&lt;210&gt; 4941

&lt;211&gt; 1718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4941

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1140

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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		20					25					30		Ala
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val
		35					40				45			Pro
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met
		50				55				60				Gly
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu
65					70				75					80
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala
			85						90				95	Arg
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr
		100						105					110	Leu
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr
		115					120					125		Ala
Thr	Ala	Phe	Phe	Val	Glu	Leu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg
		130				135					140			Ile
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His
145					150				155					His
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu
			165						170				175	Ala
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser
		180						185					190	Met
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala
		195				200					205			Val
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met
														Asp



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225      230      235      240
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245      250      255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260      265      270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275      280      285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290      295      300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
      305      310      315      320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325      330      335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340      345      350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355      360      365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370      375      380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
      385      390      395      400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405      410      415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420      425      430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
      435      440      445
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys
      450      455      460
Met Ser Leu Lys Lys
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<210> 4943
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<212> DNA
<213> Homo sapiens

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420

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 1020

&lt;210&gt; 4944

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35				40					45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr	
	50				55				60						
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65				70				75				80			
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
			85				90					95			
Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
			100				105								

&lt;210&gt; 4945

&lt;211&gt; 1792

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4945

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1680  
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1792

<210> 4946  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<400> 4946  
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 20 25 30  
 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe  
 35 40 45  
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser  
 50 55 60  
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg  
 65 70 75 80  
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn  
 85 90 95  
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg  
 100 105 110  
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn  
 115 120 125  
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp  
 130 135 140  
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala  
 145 150 155 160  
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser  
 165 170 175  
 Leu Ala Gly Cys Cys Leu Ser Ser Val Pro Arg Ser Ser Thr Ser Trp  
 180 185 190  
 Ser Leu Ser Arg Leu  
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<210> 4947  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 4947  
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 360  
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 420

gtggtgccta accccaggcc gagtgtgact cattccacct tgcagttaaa gcagtggaag  
480  
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600  
gtagcattgg taaagtggaa ggaccttggt ctgtttgtca gtaggagctg atgtgtgtga  
660  
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720  
tgcttagacc agtctagacc ctctggccct ctgcattccc agttccaaat gctagggatg  
780  
gagaatgtgc ttgggcttgc ataagacggg gctatgcccc tggctctcct cagctgtagt  
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cagcattgct agctgccac aactcacgcc agtgggtgaa gatgctggtc tcagagaacc  
900  
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960  
cattacctgt gagcagagct tactcctctg ccattctctc tccaggccct cagcatcctc  
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1140  
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1200  
gacacttggc gcttcctgga aaaccgggtt aatgatgcaa tgaacatggg ccacactgcc  
1260  
aagcaggtaa agtccacagg agaggcactg gtgcaaggac tcatgggtgc agcagtgcg  
1320  
ctcaagaact tgacangtct aaaccagcgt cggtgagagg aaggggtata agctacaatg  
1380  
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1740  
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1920  
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2040

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2060

<210> 4948  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 4948  
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20 25 30  
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn  
35 40 45  
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu  
50 55 60  
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg  
65 70 75 80  
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala  
85 90 95  
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly  
100 105 110  
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg  
115 120 125

<210> 4949  
<211> 1259  
<212> DNA  
<213> Homo sapiens

<400> 4949  
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120  
gcttgggagg aaaagacgct gtccaagtac gaggccagcg agattcgctt gctggagatc  
180  
ctggaggggc tgtgcgagag cagcgacttc gaatgcaatc agatgctaga ggcgaggag  
240  
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300  
ttttgtgtga agacactgaa agtgtgtgct tctccaggaa cctacgggtc cgactgtctc  
360  
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420  
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540  
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600  
gtgggctggg tgctggacga gggcgctgt gtggatgtgg acgagtgtgc ggccgagccg  
660

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 780  
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 840  
 aaaacctgtg tgaggaaaaa cgaaaactgc tacaatactc caggagcta cgtctgtgtg  
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 tgtcctgacg gcttcgaaga anacggaaga tgcctgtgtg ccgccggcag aggtgaagc  
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 1020  
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 1140  
 cccttaaaca gctgcatttc ttggttgttc ttaaacagac ttgtatattt tgatacagtt  
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 1259

<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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			20					25						30	
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
		35					40						45		
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu
	50					55					60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu
65					70					75				80	
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
				85					90					95	
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro
			100					105						110	
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg
		115				120						125			
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly
	130					135						140			
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr
145					150					155				160	
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser
			165						170					175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr
			180						185					190	
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly
	195						200					205			
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

&lt;210&gt; 4951

&lt;211&gt; 1835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

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120
agcgacgact tccgccctcc ttagggcctg ggtcccgtag ctaccggctg cgtcgccgtg
180
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240
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300
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420
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660
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900
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960
acagagctgg tgatgatgca ggactcctct ccagactttg aggacacttg gcgcttcctg
1020

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 1200  
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 1260  
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 1835

<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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			20					25					30		
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
			35				40					45			
Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
			50				55				60				
Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro	Pro
65					70				75					80	
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu
			85					90					95		
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
			100				105						110		
Ala	His	Gly	Trp	Thr	Ala	Glu	Ala	Ile	Ala	Glu	Gly	Ala	Gln	Ser	Leu
			115				120					125			
Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser	Glu
			130				135				140				
Leu	Ile	Leu	His	Phe	Val	Thr	Gln	Cys	Asn	Thr	Arg	Leu	Thr	Arg	Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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<210> 4953  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

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<400> 4953
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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcggggacc
180
taccctcgaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaacccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

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<210> 4954  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

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      50      55      60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65      70      75      80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85      90      95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100      105      110
Glu Ala

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<210> 4955  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

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<400> 4955
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120
agctcagcct gccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacctcgg ggggacatct gagggcaccc ccaccacta ttctccctc
240
caagggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgccccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
ggggg
364

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<210> 4956  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 4956
Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
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Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20      25      30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35      40      45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50      55      60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65      70      75      80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85      90      95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100      105      110
Gln Gly

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<210> 4957  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4957  
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 120  
 tcttgacaag actgtacagg gcttctcatc atacacaaac cctccacagc ccacggctcc  
 180  
 aaccacagc acctcctgca gtccctggagg gaaaaggagc agtaacatga agtgtctgaa  
 240  
 gatccatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga  
 300  
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat  
 360  
 caataatatg tcagtcaact gcttgctcaga gacacttagc tgctgacagg tcctcataac  
 420  
 ctgactcagg taaactgcc aagatgctt gcacaggatg ctgtcactct tccgtagcac  
 480  
 tgagaatgca aatgcaggac atgaacagta atgacaagaa gccaaacatg tgtatgtttt  
 540  
 actggaactt ccaaggacct ggtaaacacg ccttccactg ggtgatgaga ttaagggtgat  
 600  
 ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag  
 660  
 cgataacaga tattcatcag gaattcgggc ccgtacttcg cgcgctctcc tgcacgcgcg  
 720  
 ccgccatctc gctcaggagc tcctccacaa ccgccggcaa ctacggccat cgcgccgcag  
 780  
 gacacgccct ccacgacgcg gaccgcgcga cgctccagct gactgcgcct acctgtggag  
 840  
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 872

<210> 4958  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 4958  
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 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr  
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 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg  
 35 40 45  
 Arg Ser Ser  
 50

<210> 4959  
 <211> 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4959

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&lt;210&gt; 4960

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4960

Met	Phe	Asn	Ser	Thr	Gln	Asn	Thr	Trp	Gly	Cys	Gly	Leu	Trp	Ser	His
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Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
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Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
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Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
						85				90				95	
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu
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Asp	Thr	Arg													
			115												

&lt;210&gt; 4961

&lt;211&gt; 4737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

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4737

&lt;210&gt; 4962

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr



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20	25	30	
Pro Leu Gly Asp	Tyr Gly Val Gly	Ser Lys Asn Ser Lys	Arg Ala Arg
35	40	45	
Glu Lys Arg Asp	Ser Arg Asn Met	Glu Val Gln Val Thr	Gln Glu Met
50	55	60	
Arg Asn Val Ser	Ile Gly Met Gly	Ser Ser Asp Glu Trp	Ser Asp Val
65	70	75	80
Gln Asp Ile Ile	Asp Ser Thr Pro	Glu Leu Asp Met Cys	Pro Glu Thr
85	90	95	
Arg Leu Asp Arg	Thr Gly Ser Ser	Pro Thr Gln Gly Ile	Val Asn Lys
100	105	110	
Ala Phe Gly Ile	Asn Thr Asp Ser	Leu Tyr His Glu Leu	Ser Thr Ala
115	120	125	
Gly Ser Glu Val	Ile Gly Asp Val	Asp Glu Gly Ala Asp	Leu Leu Gly
130	135	140	
Glu Phe Ser Gly	Met Gly Lys Glu	Val Gly Asn Leu Leu	Glu Asn
145	150	155	160
Ser Gln Leu Leu	Glu Thr Lys Asn	Ala Leu Asn Val Val	Lys Asn Asp
165	170	175	
Leu Ile Ala Lys	Val Asp Gln Leu	Ser Gly Glu Gln Glu	Val Leu Arg
180	185	190	
Gly Glu Leu Glu	Ala Ala Lys Gln	Ala Lys Val Lys	Leu Glu Asn Arg
195	200	205	
Ile Lys Glu Leu	Glu Glu Leu Lys	Arg Val Lys Ser	Glu Ala Ile
210	215	220	
Ile Ala Arg Arg	Glu Pro Lys Glu	Glu Ala Glu Asp	Val Ser Ser Tyr
225	230	235	240
Leu Cys Thr Glu	Ser Asp Lys Ile	Pro Met Ala Gln	Arg Arg Arg Phe
245	250	255	
Thr Arg Val Glu	Met Ala Arg Val	Leu Met Glu Arg	Asn Gln Tyr Lys
260	265	270	
Glu Arg Leu Met	Glu Leu Gln Glu	Ala Val Arg Trp	Thr Glu Met Ile
275	280	285	
Arg Ala Ser Arg	Glu His Pro Ser	Val Gln Glu Lys	Lys Lys Ser Thr
290	295	300	
Ile Trp Gln Phe	Phe Ser Arg Leu	Phe Ser Ser Ser	Ser Ser Pro Pro
305	310	315	320
Pro Ala Lys Arg	Pro Tyr Pro Ser	Val Asn Ile His	Tyr Lys Ser Pro
325	330	335	
Thr Thr Ala Gly	Phe Ser Gln Arg	Arg Asn His Ala	Met Cys Pro Ile
340	345	350	
Ser Ala Gly Ser	Arg Pro Leu Glu	Phe Phe Pro Asp	Asp Asp Cys Thr
355	360	365	
Ser Ser Ala Arg	Arg Glu Gln Lys	Arg Glu Gln Tyr	Arg Gln Val Arg
370	375	380	
Glu His Val Arg	Asn Asp Asp Gly	Arg Leu Gln Ala	Cys Gly Trp Ser
385	390	395	400
Leu Pro Ala Lys	Tyr Lys Gln Leu	Ser Pro Asn Gly	Gly Gln Glu Asp
405	410	415	
Thr Arg Met Lys	Asn Val Pro Val	Pro Val Tyr Cys	Arg Pro Leu Val
420	425	430	
Glu Lys Asp Pro	Thr Met Lys Leu	Trp Cys Ala Ala	Gly Val Asn Leu

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Ser	Gly	Trp	Arg	Pro	Asn	Glu	Asp	Asp	Ala	Gly	Asn	Gly	Val	Lys	Pro
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Ala	Pro	Gly	Arg	Asp	Pro	Leu	Thr	Cys	Asp	Arg	Glu	Gly	Asp	Gly	Glu
465					470					475					480
Pro	Lys	Ser	Ala	His	Ala	Ser	Pro	Glu	Lys	Lys	Lys	Ala	Lys	Glu	Leu
				485					490					495	
Pro	Glu	Met	Asp	Ala	Thr	Ser	Ser	Arg	Val	Trp	Ile	Leu	Thr	Ser	Thr
			500					505					510		
Leu	Thr	Thr	Ser	Lys	Val	Val	Ile	Ile	Asp	Ala	Asn	Gln	Pro	Gly	Thr
		515					520					525			
Val	Val	Asp	Gln	Phe	Thr	Val	Cys	Asn	Ala	His	Val	Leu	Cys	Ile	Ser
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Ser	Ile	Pro	Ala	Ala	Ser	Asp	Ser	Asp	Tyr	Pro	Pro	Gly	Glu	Met	Phe
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Leu	Asp	Ser	Asp	Val	Asn	Pro	Glu	Asp	Pro	Gly	Ala	Asp	Gly	Val	Leu
			565						570					575	
Ala	Gly	Ile	Thr	Leu	Val	Gly	Cys	Ala	Thr	Arg	Cys	Asn	Val	Pro	Arg
			580				585					590			
Ser	Asn	Cys	Ser	Ser	Arg	Gly	Asp	Thr	Pro	Val	Leu	Asp	Lys	Gly	Gln
		595					600					605			
Gly	Glu	Val	Ala	Thr	Ile	Ala	Asn	Gly	Lys	Val	Asn	Pro	Ser	Gln	Ser
	610					615					620				
Thr	Glu	Glu	Ala	Thr	Glu	Ala	Thr	Glu	Val	Pro	Asp	Pro	Gly	Pro	Ser
625				630						635					640
Glu	Pro	Glu	Thr	Ala	Thr	Leu	Arg	Pro	Gly	Pro	Leu	Thr	Glu	His	Val
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Phe	Thr	Asp	Pro	Ala	Pro	Thr	Pro	Ser	Ser	Gly	Pro	Gln	Pro	Gly	Ser
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Glu	Asn	Gly	Pro	Glu	Pro	Asp	Ser	Ser	Ser	Thr	Arg	Pro	Glu	Pro	Glu
		675					680				685				
Pro	Ser	Gly	Asp	Pro	Thr	Gly	Ala	Gly	Ser	Ser	Ala	Ala	Pro	Thr	Met
	690					695					700				
Trp	Leu	Gly	Ala	Gln	Asn	Gly	Trp	Leu	Tyr	Val	His	Ser	Ala	Val	Ala
705				710						715					720
Asn	Trp	Lys	Lys	Cys	Leu	His	Ser	Ile	Lys	Leu	Lys	Asp	Ser	Val	Leu
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Ser	Leu	Val	His	Val	Lys	Gly	Arg	Val	Leu	Val	Ala	Leu	Ala	Asp	Gly
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Thr	Leu	Ala	Ile	Phe	His	Arg	Gly	Glu	Asp	Gly	Gln	Trp	Asp	Leu	Ser
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785				790						795					800
His	Val	Ile	Gln	Pro	Lys	Thr	Met	Gln	Ile	Glu	Lys	Ser	Phe	Asp	Ala
			805						810					815	
His	Pro	Arg	Arg	Glu	Ser	Gln	Val	Arg	Gln	Leu	Ala	Trp	Ile	Gly	Asp
			820				825					830			
Gly	Val	Trp	Val	Ser	Ile	Arg	Leu	Asp	Ser	Thr	Leu	Arg	Leu	Tyr	His
		835					840					845			
Ala	His	Thr	His	Gln	His	Leu	Gln	Asp	Val	Asp	Ile	Glu	Pro	Tyr	Val
	850					855					860				
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Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
      915          920          925
Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
      930          935          940
Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
845          950          955          960
Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
      965          970          975
Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
      980          985          990
Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
      995          1000          1005
Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
      1010          1015          1020
Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
1025          1030          1035          1040
Ala Gly Asp Met Ser Gln Val Lys Pro Val Leu Ser Lys Ala Glu Arg
      1045          1050          1055
Ser His Ile Ile Val Trp Gln Val Ser Tyr Thr Pro Glu
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<210> 4963
<211> 1575
<212> DNA
<213> Homo sapiens

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180
gccatcccca aagccagctc ttctgagtct ctttcggcca aaacctgcag cttatttctg
240
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420
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480
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660

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&lt;210&gt; 4964

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
65				70						75				80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85						90					95	
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
			100				105						110		
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

		115					120					125					
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Gly	Leu	Glu	His	Leu	Ala	Val	Arg	Gln	Ser	Pro	Ala	Trp	Arg	Ile	Leu		
145					150					155					160		
Pro	Ala	Lys	Ile	Ala	Glu	Val	Met	Glu	Glu	Leu	Lys	Ala	Val	Glu	Val		
				165					170						175		
Phe	Leu	Lys	Ser	Asp	Ser	Leu	Cys	Leu	Met	Glu	Gly	Arg	Arg	Phe	Arg		
			180					185					190				
Ala	Gln	Pro	Thr	Leu	Pro	Ser	Ala	His	Leu	Leu	Ala	Met	His	Ile	Gln		
		195					200					205					
Gln	Leu	Glu	Thr	Gly	Gly	Phe	Thr	Met	Thr	Asn	Gly	Ala	His	Arg	Trp		
	210					215					220						
Ser	Lys	Leu	Arg	Asn	Ile	Ala	Lys	Val	Val	Ser	Gln	Val	His	Ala	Phe		
225					230					235					240		
Gln	Glu	Asn	Pro	Tyr	Thr	Phe	Ser	Pro	Asp	Pro	Lys	Leu	Gln	Ser	Tyr		
				245					250						255		
Leu	Lys	Gln	Arg	Ile	Ala	Arg	Phe	Ser	Gly	Ala	Asp	Ile	Ser	Thr	Leu		
			260					265					270				
Ala	Ala	Asp	Ser	Arg	Ala	Asn	Phe	His	Gln	Val	Ser	Ser	Glu	Lys	His		
		275					280					285					
Ser	Arg	Lys	Ile	Gln	Asp	Lys	Leu	Arg	Arg	Met	Lys	Ala	Thr	Phe	Gln		
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<211> 1474
<212> DNA
<213> Homo sapiens
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ccccaagcag agagcacgct gctcagggac agagctgggc ttgtgaccat gtgtcgccct
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240
cctacagccc ttttagtgac caggggcatt tcctaccctc acttgatctc aaagccacgg
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540
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720

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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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			20					25					30		
Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
			35				40					45			
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
			50			55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70					75				80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85					90					95		
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
			100					105					110		
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
			115				120					125			
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
			130			135					140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
145					150					155				160	
Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro

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                165                170                175
Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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Glu Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly
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His Arg Ala Leu
                210

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<210> 4967  
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 <212> DNA  
 <213> Homo sapiens

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240
ctgaacattc aggagaaagc tggatgatgta atttggtctg agtcccaatg cctgagaacc
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420
tcaggctctc agaggcttgg atgatgtcca ttcacattgg gcagggctag gtacttttct
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550

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<210> 4968  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

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Tyr Ser Ser Leu Gln Pro Arg Thr Pro Gly Leu Lys Gln Ser Phe Arg
20      25      30
Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
35      40      45
Ala Ser Gln
50

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<210> 4969  
 <211> 2911  
 <212> DNA  
 <213> Homo sapiens

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gatgagaagg gtgcgggggc ccttcccttc ctaccagggg tctttggcta cgcagtgaat  
180  
cctcaagcag cccccctgc cccaccaaca ccacctcccc caactcttcc tccaccaatt  
240  
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300  
ntgaaccctg gggctcaatc cccctttcac cagatgccac cctccctgaa cccccacca  
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420  
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480  
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2911

&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

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20	25	30	
Val Ala Leu Asn Met Val Leu Pro Asp Glu Lys Gly Ala Gly Ala Leu			
35	40	45	
Pro Phe Leu Pro Gly Val Phe Gly Tyr Ala Val Asn Pro Gln Ala Ala			
50	55	60	
Pro Pro Ala Pro Pro Thr Pro Pro Pro Thr Leu Pro Pro Pro Ile			
65	70	75	80
Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys			
85	90	95	
Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met			
100	105	110	
Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
115	120	125	
Pro Leu Gly Ala Pro Ser His Ser Cys Ala Gly Thr Trp Gly Pro Leu			
130	135	140	
Glu Leu Arg Gly Gln Ala Ala Leu Cys Glu Met			
145	150	155	

&lt;210&gt; 4971

&lt;211&gt; 2939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 4972

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		20					25						30		
Lys	Thr	Gln	Ala	Glu	Ala	Val	Ala	Glu	Ala	Glu	Leu	Lys	Thr	Glu	Ser
	35				40						45				
Val	Thr	Gln	Ala	Lys	Ala	Gly	Asp	Gly	Ala	Met	Thr	Arg	Thr	His	Thr
	50				55					60					
Val	Thr	Tyr	Arg	Glu	Ala	Met	Ala	Val	Thr	Arg	Glu	Val	Ile	Lys	Val
65				70					75					80	
Glu	Asp	Thr	Thr	Lys	Thr	Arg	Val	Met	Val	Glu	Thr	Lys	Thr	Lys	Pro
			85					90						95	
Leu	Ala	Glu	Arg	Ser	Ile	Val	Pro	Gln	Thr	Lys	Ser	Lys	Ala	Met	Pro
			100				105						110		
Met	Ser	Arg	Val	Ser	Thr	Val	Thr	Lys	Ser	Glu	Val	Lys	Val	Val	Ala
		115				120						125			
Val	Ile	Glu	Ala	Asn	Ile	Arg	Ser	Tyr	Ala	Lys	Ser	His	Asp	Lys	Ala
	130				135							140			
Asn	Thr	Gly	Ser	Arg	Pro	Asp	Arg	Arg	Glu	Glu	Thr	Ser	Ile	Gly	Met
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Lys	Ser	Ser	Asp	Glu	Asp	Glu	Glu	Asn	Ile	Cys	Ser	Trp	Phe	Trp	Thr
			165					170						175	
Gly	Glu	Glu	Pro	Ser	Val	Gly	Ser	Trp	Phe	Trp	Pro	Glu	Glu	Glu	Thr
			180				185						190		
Ser	Leu	Gln	Val	Tyr	Lys	Pro	Leu	Pro	Lys	Ile	Gln	Glu	Lys	Pro	Lys
	195					200					205				
Pro	Thr	His	Lys	Pro	Thr	Leu	Thr	Ile	Lys	Gln	Lys	Val	Ile	Ala	Trp
	210				215						220				
Ser	Arg	Ala	Arg	Tyr	Ile	Val	Leu	Val	Pro	Val	Glu	Gly	Gly	Glu	Gln
225				230					235					240	
Ser	Leu	Pro	Pro	Glu	Gly	Asn	Trp	Thr	Leu	Val	Glu	Thr	Leu	Ile	Glu

245 250 255  
 Thr Pro Leu Gly Ile Arg Pro Leu Thr Lys Ile Pro Pro Tyr His Gly  
 260 265 270  
 Pro Tyr Tyr Gln Thr Leu Ala Glu Ile Lys Lys Gln Ile Arg Gln Arg  
 275 280 285  
 Glu Lys Tyr Gly Pro Asn Pro Lys Ala Cys His Cys Lys Ser Arg Gly  
 290 295 300  
 Phe Ser Leu Glu Pro Lys Glu Phe Asp Lys Leu Val Ala Leu Leu Lys  
 305 310 315 320  
 Leu Thr Lys Asp Pro Phe Ile His Glu Ile Ala Thr Met Ile Met Gly  
 325 330 335  
 Ile Ser Pro Ala Tyr Pro Phe Thr Gln Asp Ile Ile His Asp Val Gly  
 340 345 350  
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&lt;210&gt; 4973

&lt;211&gt; 3555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4973

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 Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser Tyr  
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&lt;210&gt; 4976

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4976

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Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
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	165	170
Asn Phe Gln Thr Thr Lys Asp Ser Val Gln Leu Lys Glu His Leu Asp		175
	180	185
Arg Leu Met Asn Leu Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr		190
	195	200
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg		205
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Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr		220
225	230	235
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	245	250
Ser Pro His Leu Gln Gly Glu Ala Ser Lys Thr Ala Phe Ser Ile Glu		255
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Lys Val Lys Leu Arg Val Leu Lys Gln Tyr Asp Tyr Asp Ser Ser Thr		270
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Ile Arg Lys Lys Ile Phe Gln Glu Ala Leu		285
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&lt;210&gt; 4977

&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

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&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

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			20					25					30		
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
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Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
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His Ile Leu Gly Gln Tyr Leu Gly Asn Ser Gly Pro Gln Lys Leu Tyr
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Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly
      485      490      495
Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
      500      505      510
Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp
      515      520      525
Lys Thr Thr Ser His Thr Glu Leu Val Arg Gly Ala Arg Ile Thr Tyr
      530      535      540
Gln Cys Asp Pro Gly Tyr Asp Ile Val Gly Ser Asp Thr Leu Thr Cys

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545                      550                      555                      560  
 Gln Trp Asp Leu Ser Trp Ser Ser Asp Pro Pro Phe Cys Glu Lys Ile  
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 Met Tyr Cys Thr Asp Pro Gly Glu Val Asp His Ser Thr Arg Leu Ile  
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 Ser Asp Pro Val Leu Leu Val Gly Thr Thr Ile Gln Tyr Thr Cys Asn  
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 Pro Gly Phe Val Leu Glu Gly Ser Ser Leu Leu Thr Cys Tyr Ser Arg  
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 Glu Thr Gly Thr Pro Ile Trp Thr Ser Arg Leu Pro His Cys Val Ser  
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 Glu Glu Ser Leu Ala Cys Asp Asn Pro Gly Leu Pro Glu Asn Gly Tyr  
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 Val Leu Ile Ile Ser Leu Leu Leu Gly Gly Ala Tyr Ile Tyr Ile Thr  
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 Arg Cys Arg Tyr Tyr Ser Asn Leu Arg Leu Pro Leu Met Tyr Ser His  
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 Pro Tyr Ser Gln Ile Thr Val Glu Thr Glu Phe Asp Asn Pro Ile Tyr  
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&lt;210&gt; 4979

&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4979

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1865

&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

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 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
 50 55 60  
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
 130 135 140  
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 145 150 155 160  
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys  
 165 170 175  
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser  
 180 185 190  
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly  
 195 200 205  
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
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&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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&lt;210&gt; 4982

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 <212> PRT  
 <213> Homo sapiens

<400> 4982  
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 20 25 30  
 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Leu Ser  
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 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile  
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 Phe Ser Arg Asp Gly Val Ser Pro Cys  
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<210> 4983  
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 <212> DNA  
 <213> Homo sapiens

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
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Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
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Ser	Leu	Asn	Phe	Glu	Arg	Ile	Val	Met	Ser	Gln	Leu	Asn	Pro	Leu	Lys
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			165					170						175	
Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
			180				185						190		
Lys	Arg	Ser	Lys	Lys	Phe	Ile	Asp	Pro	Ile	Tyr	Gln	Val	Trp	Glu	Asp
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	210					215						220			
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<211> 5695  
<212> DNA  
<213> Homo sapiens

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4157

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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
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Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
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Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile	Ala
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Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys	Ala

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Pro	Lys	Thr	Arg	Pro	Gln	Asn	Gly	Ser	Ile	Ile	Leu	Tyr	Asn	Arg	Lys
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Lys	Val	Lys	Tyr	Arg	Lys	Asp	Gly	Tyr	Leu	Trp	Lys	Lys	Arg	Lys	Asp
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Gly	Lys	Thr	Thr	Arg	Glu	Asp	His	Met	Lys	Leu	Lys	Val	Gln	Gly	Met
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Glu	Pro	Val	Ser	Trp	Gln	Cys	Leu	Tyr	Gly	Cys	Tyr	Val	His	Ser	Ser
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Ile	Val	Pro	Thr	Phe	His	Arg	Arg	Cys	Tyr	Trp	Leu	Leu	Gln	Asn	Pro
				165				170				175			
Asp	Ile	Val	Leu	Val	His	Tyr	Leu	Asn	Val	Pro	Ala	Leu	Glu	Asp	Cys
				180				185				190			
Gly	Lys	Gly	Cys	Ser	Pro	Ile	Phe	Cys	Ser	Ile	Ser	Ser	Asp	Arg	Arg
				195				200				205			
Glu	Trp	Leu	Lys	Trp	Ser	Arg	Glu	Glu	Leu	Leu	Gly	Gln	Leu	Lys	Pro
				210				215				220			
Met	Phe	His	Gly	Ile	Lys	Trp	Ser	Cys	Gly	Asn	Gly	Thr	Glu	Glu	Phe
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Ser	Val	Glu	His	Leu	Val	Gln	Gln	Ile	Leu	Asp	Thr	His	Pro	Thr	Lys
				245				250				255			
Pro	Ala	Pro	Arg	Thr	His	Ala	Cys	Leu	Cys	Ser	Gly	Gly	Leu	Gly	Ser
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Gly	Ser	Leu	Thr	His	Lys	Cys	Ser	Ser	Thr	Lys	His	Arg	Ile	Ile	Ser
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Pro	Lys	Val	Glu	Pro	Arg	Ala	Leu	Thr	Leu	Thr	Ser	Ile	Pro	His	Pro
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His	Pro	Pro	Glu	Pro	Pro	Pro	Leu	Ile	Ala	Pro	Leu	Pro	Pro	Glu	Leu
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Pro	Lys	Ala	His	Thr	Ser	Pro	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
				325				330				335			
Gly	Phe	Ala	Glu	Pro	Leu	Glu	Ile	Arg	Pro	Ser	Pro	Pro	Thr	Ser	Arg
				340				345				350			
Gly	Gly	Ser	Ser	Arg	Gly	Gly	Thr	Ala	Ile	Leu	Leu	Leu	Thr	Gly	Leu
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Glu	Gln	Arg	Ala	Gly	Gly	Leu	Thr	Pro	Thr	Arg	His	Leu	Ala	Pro	Gln
				370				375				380			
Ala	Asp	Pro	Arg	Pro	Ser	Met	Ser	Leu	Ala	Val	Val	Val	Gly	Thr	Glu
				385				390				395			
Pro	Ser	Ala	Pro	Pro	Ala	Pro	Pro	Ser	Pro	Ala	Phe	Asp	Pro	Asp	Arg
				405				410				415			
Phe	Leu	Asn	Ser	Pro	Gln	Arg	Gly	Gln	Thr	Tyr	Gly	Gly	Gly	Gln	Gly
				420				425				430			
Val	Ser	Pro	Asp	Phe	Pro	Glu	Ala	Glu	Ala	Ala	His	Thr	Pro	Cys	Ser
				435				440				445			
Ala	Leu	Glu	Pro	Ala	Ala	Ala	Leu	Glu	Pro	Gln	Ala	Ala	Ala	Arg	Gly
				450				455				460			
Pro	Pro	Pro	Gln	Ser	Val	Ala	Gly	Gly	Arg	Arg	Gly	Asn	Cys	Phe	Phe
				465				470				475			
Ile	Gln	Asp	Asp	Asp	Ser	Gly	Glu	Glu	Leu	Lys	Gly	His	Gly	Ala	Ala
				485				490				495			
Pro	Pro	Ile	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Ala	Pro
				500				505				510			
Leu	Glu	Pro	Ser	Ser	Arg	Val	Gly	Arg	Gly	Glu	Ala	Leu	Phe	Gly	Gly



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Pro Val Gly Ala Ser Glu Leu Glu Pro Phe Ser Leu Ser Ser Phe Pro		
530	535	540
Asp Leu Met Gly Glu Leu Ile Ser Asp Glu Ala Pro Ser Ile Pro Ala		
545	550	555
Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser		
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Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly		
580	585	590
Pro Trp Thr Glu Ala Ala Glu His Tyr Ser Cys Val Phe Asp His Ile		
595	600	605
Ala Val Pro Ala Ser Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys		
610	615	620
Pro Ala His Glu Val Gly Leu Val Ser Leu Gln Val Ala Gly Arg Glu		
625	630	635
Gly Pro Leu Ser Ala Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe		
645	650	655
Leu Ser Leu Pro Ser Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn		
660	665	670
Gln Phe Arg Met Ser Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg		
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Met Ala Glu Ile Ala Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp		
690	695	700
Ala Pro Pro Val Gln Asp Glu Gly Gln Gly Pro Gly Phe Glu Ala Arg		
705	710	715
Val Val Val Leu Val Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly		
725	730	735
Pro Glu Arg Leu Ala His Gly Ser Pro Phe Arg Gly Met Ser Leu Leu		
740	745	750
His Leu Ala Ala Ala Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser		
755	760	765
Gln Trp Arg Ser Val Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val		
770	775	780
Asp Pro Leu Asn Val Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala		
785	790	795
Cys Ala Leu Gly His Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn		
805	810	815
Arg Gln Ala Leu Ser Ile Pro Asp Ser Leu Gly Arg Leu Pro Leu Ser		
820	825	830
Val Ala His Ser Arg Gly His Val Arg Leu Ala Arg Cys Leu Glu Glu		
835	840	845
Leu Gln Arg Gln Glu Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro		
850	855	860
Pro Ser Ser Ser Pro Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser		
865	870	875
Glu Leu Ser Asp Gly Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala		
885	890	895
Pro Asp Gly Ser Pro Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr		
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Met Glu Asp Met Ala Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala		
915	920	925
Pro Leu Leu Leu Met Asp Tyr Glu Ala Thr Asn Ser Lys Gly Pro Leu		
930	935	940
Ser Ser Leu Pro Ala Leu Pro Pro Ala Ser Asp Asp Gly Ala Ala Pro		

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 Ile Ser Leu Ala Lys Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys  
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 Arg Glu Asp Phe Val Gly Leu Pro Glu Ala Gly Ala Ser Met Arg Glu  
                                  995                      1000                      1005  
 Arg Thr Gly Ala Val Gly Leu Ser Glu Thr Met Ser Trp Leu Ala Ser  
                                  1010                      1015                      1020  
 Tyr Leu Glu Asn Val Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu  
                                  1025                      1030                      1035                      1040  
 Leu Pro Phe Glu Arg Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp  
                                  1045                      1050                      1055  
 Ala Glu Phe Leu Ser Ala Ser Thr Ser Gly Lys Met Glu Ser Asp Phe  
                                  1060                      1065                      1070  
 Ala Leu Leu Thr Leu Ser Asp His Glu Gln Arg Glu Leu Tyr Glu Ala  
                                  1075                      1080                      1085  
 Ala Arg Val Ile Gln Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu  
                                  1090                      1095                      1100  
 Lys Glu Gln Gln Glu Val Ala Ala Val Ile Gln Arg Cys Tyr Arg  
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 Lys Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys  
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 Lys Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr  
                                  1140                      1145                      1150  
 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Val Leu Ile  
                                  1155                      1160                      1165  
 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg  
                                  1170                      1175                      1180  
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys  
                                  1185                      1190                      1195                      1200  
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys  
                                  1205                      1210                      1215  
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu  
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 Pro Gln Pro Gly Leu Ala Thr  
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&lt;210&gt; 4987

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4987

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<210> 4988  
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<212> PRT  
<213> Homo sapiens

<400> 4988  
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Phe Pro Leu Cys Phe Leu Gly Thr Ala Phe Pro Gln Gly Glu Gln Arg  
35 40 45  
Pro Leu Glu Ala Lys Gly Leu Ala Thr Gln Gly Ala Ser Leu Pro Leu  
50 55 60  
Leu Pro Thr Val Thr Cys Val Ser Ile Lys Ser Trp Lys Met Glu Cys  
65 70 75 80  
Pro His Gln Gly Asp Gly Val Thr Thr Glu Ala Gly Ser Glu Leu Pro  
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Gln Leu Leu Gln Ala Pro Trp Pro Arg  
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<210> 4989  
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<212> DNA  
<213> Homo sapiens

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<210> 4990  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 4990  
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 Arg Thr Ser Ile Ser Gly  
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 <211> 828  
 <212> DNA  
 <213> Homo sapiens

<400> 4991  
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 420  
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<210> 4992  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 4992  
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 Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys  
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 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn  
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 Thr Val Met Leu Gln  
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<210> 4993  
 <211> 837  
 <212> DNA  
 <213> Homo sapiens

<400> 4993

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 420  
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 660  
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 837

&lt;210&gt; 4994

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4994

Met	Asp	Arg	Leu	Ala	Arg	Gly	Thr	Gln	Ser	Ile	Pro	Asn	Asp	Ser	Pro
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		20					25					30			
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&lt;211&gt; 1595

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&lt;213&gt; Homo sapiens

&lt;400&gt; 4995

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 Ile Ser Leu Thr Met Asn Ser Lys Leu Leu Asn Gly Ser Gln Arg Val  
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 Val Met Asp Gly Val Ile Ser Asp His Glu Cys Gln Glu Leu Gln Arg  
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 Leu Thr Asn Val Ala Ala Thr Ser Gly Asp Gly Tyr Arg Gly Gln Thr  
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 Ser Pro His Thr Pro Asn Glu Lys Phe Tyr Gly Val Thr Val Phe Lys  
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 Leu Tyr Tyr Asn Val Thr Glu Lys Val Arg Arg Ile Met Glu Ser Tyr  
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 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys  
                   130                  135                  140  
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<211> 464

<212> PRT

<213> Homo sapiens

<400> 4998

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Trp	Ser	Ser	Arg	Ser	Leu	Gly	Ala	Arg	Cys	Arg	Asn	Ser	Ile	Ala	Ser
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Cys	Pro	Glu	Glu	Gln	Pro	His	Val	Gly	Asn	Tyr	Arg	Leu	Leu	Arg	Thr
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Gln	Lys	Tyr	Asn	Glu	Val	Thr	Ala	Thr	Tyr	Leu	Leu	Leu	Gly	Arg	Lys
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Ala	Arg	Pro	Glu	Gly	Glu	Leu	Gln	His	Arg	Gly	Glu	Trp	Glu	Ser	Arg
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 <213> Homo sapiens

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&lt;211&gt; 307

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Ser Glu Ser Lys Gln Thr His Val His Leu Arg Asn Val Asp Ala Ala  
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 Thr Leu Gln Ile Ile Ile Thr Tyr Ala Tyr Thr Gly Asn Leu Ala Met  
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Thr Ala Val Tyr His Gln Asp Ala Phe Met Gln Leu Leu His Asp Leu		
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Leu Ile Asp Ile Leu Ser Ser Asp Asn Leu Asn Val Glu Lys Glu Glu		
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Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile		
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&lt;210&gt; 5003

&lt;211&gt; 3729

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5003

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&lt;210&gt; 5004

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5004

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Leu Gln Arg Ser Leu Asn Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu
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Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
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Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
195          200          205
Ala Asp Asn Val Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser Ser
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Lys Val Lys Arg Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser Leu
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290          295          300
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Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro Ser Ala Ala His
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Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
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465          470          475          480
Ser Ser Pro Ser Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr
          485          490          495
Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu
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Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu Gly Glu Ala Gly
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Arg Glu Gly Arg Pro Gly Gly Glu Glu Arg Gly Ala Arg Val Gly Val
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Pro Gln Gly Arg Ile Pro Gly Glu Gln Ala Thr Ser Pro Pro Thr Ser
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 <212> DNA  
 <213> Homo sapiens

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<210> 5006

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
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Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
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Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
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Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
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Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
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<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 5008

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5008

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		20						25					30		
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Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
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Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
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Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100				105						110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
	115					120					125				
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135					140				
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
145					150					155				160	
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

Tyr Gly Gln Gly Phe Phe Glu Glu Glu Gly Lys Glu Tyr Ile Tyr  
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 Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln  
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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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Ser	Tyr	Ala	Cys	Phe	Phe	Phe	Leu	Ser	Pro	Ser	Leu	Leu	Phe	Leu	Pro
		20					25					30			
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35				40					45				
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55				60					
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65				70					75					80	
Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
			85					90					95		
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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Val	Ile	Met	Pro	Lys	Pro	Tyr									
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<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
 20          25          30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35          40          45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50          55          60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65          70          75          80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85          90          95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
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Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
355          360          365
Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
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Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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Thr	Pro	Ser	Gly	Ile	Leu	Thr	Pro	His	Ala	Leu	Gly	Ser	Arg	Asn	Ser		
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Pro	Gly	Ser	Gln	Val	Ala	Ser	Asn	Pro	Arg	Gln	Ala	Tyr	Glu	Met			
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Arg	Met	Gln	Asn	Asn	Ser	Ser	Pro	Ser	Ile	Ser	Pro	Asn	Thr	Ser	Phe		
465					470					475					480		
Thr	Ser	Asp	Gly	Ser	Pro	Ser	Pro	Leu	Gly	Gly	Ile	Lys	Arg	Lys	Ala		
				485					490					495			
Glu	Asp	Ser	Asp	Ser	Glu	Pro	Glu	Pro	Glu	Asp	Asn	Val	Arg	Leu	Trp		
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Glu	Ala	Gly	Trp	Lys	Gln	Arg	Tyr	Tyr	Lys	Asn	Lys	Phe	Asp	Val	Asp		
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Ala	Ala	Asp	Glu	Lys	Phe	Arg	Arg	Lys	Val	Val	Gln	Ser	Tyr	Val	Glu		
		530					535				540						
Gly	Leu	Cys	Trp	Val	Leu	Arg	Tyr	Tyr	Tyr	Gln	Gly	Cys	Ala	Ser	Trp		
545					550					555					560		
Lys	Trp	Tyr	Tyr	Pro	Phe	His	Tyr	Ala	Pro	Phe	Ala	Ser	Asp	Phe	Glu		
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Gly	Ile	Ala	Asp	Met	Pro	Ser	Asp	Phe	Glu	Lys	Gly	Thr	Lys	Pro	Phe		
			580					585					590				
Lys	Pro	Leu	Glu	Gln	Leu	Met	Gly	Val	Phe	Pro	Ala	Ala	Ser	Gly	Asn		
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Phe	Leu	Pro	Pro	Ser	Trp	Arg	Lys	Leu	Met	Ser	Asp	Pro	Asp	Ser	Ser		
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Arg	Leu	Arg	Ala	Ala	Leu	Glu	Glu	Val	Tyr	Pro	Asp	Leu	Thr	Pro	Glu		
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Glu	Thr	Arg	Arg	Asn	Ser	Leu	Gly	Gly	Asp	Val	Leu	Phe	Val	Gly	Lys		
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His	His	Pro	Leu	His	Asp	Phe	Ile	Leu	Glu	Leu	Tyr	Gln	Thr	Gly	Ser		
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Gln Gly Tyr Pro Arg Glu Gly Arg Lys Tyr Pro Leu Pro Pro Pro Ser				
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Gly Arg Tyr Asn Trp Asn				
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&lt;210&gt; 5013

&lt;211&gt; 2480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5013

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&lt;210&gt; 5014

&lt;211&gt; 675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

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Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
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Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
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Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
 100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
 115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
 130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
 145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
 165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
 180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
 195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
 210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
 225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
 245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
 260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
 275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
 290          295          300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
 305          310          315          320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
 325          330          335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
 340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
 355          360          365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
 370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
 385          390          395          400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

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				405					410					415	
Asp	Gln	Pro	Cys	Leu	Cys	Pro	Ala	Pro	Ser	Val	Arg	Thr	Ala	Val	Ala
			420					425					430		
Leu	Thr	Thr	Pro	Asp	Ile	Thr	Leu	Val	Leu	Pro	Pro	Asp	Val	Ile	Gln
		435					440					445			
Gln	Glu	Ala	Ser	Ala	Leu	Arg	Glu	Glu	Thr	Glu	Ala	Trp	Ala	Arg	Pro
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His	Glu	Ser	Leu	Ala	Arg	Glu	Glu	Ala	Leu	Thr	Ala	Leu	Gly	Lys	Leu
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Leu	Tyr	Leu	Leu	Asp	Gly	Met	Leu	Asp	Gly	Gln	Val	Asn	Ser	Gly	Ile
				485					490					495	
Ala	Ala	Thr	Pro	Ala	Ser	Ala	Ala	Ala	Thr	Leu	Asp	Val	Ala	Val	
			500					505				510			
Arg	Arg	Gly	Leu	Ser	His	Gly	Ala	Gln	Arg	Leu	Leu	Cys	Val	Ala	Leu
		515					520					525			
Gly	Gln	Leu	Asp	Arg	Pro	Pro	Asp	Leu	Ala	His	Asp	Gly	Arg	Ser	Leu
	530					535					540				
Trp	Leu	Asn	Ile	Arg	Gly	Lys	Glu	Ala	Ala	Ala	Leu	Ser	Met	Phe	His
545					550					555				560	
Val	Ser	Thr	Pro	Leu	Pro	Val	Met	Thr	Gly	Gly	Phe	Leu	Ser	Cys	Ile
				565					570					575	
Leu	Gly	Leu	Val	Leu	Pro	Leu	Ala	Tyr	Gly	Phe	Gln	Pro	Asp	Leu	Val
			580					585					590		
Leu	Val	Ala	Leu	Gly	Pro	Gly	His	Gly	Leu	Gln	Gly	Pro	His	Ala	Ala
		595					600					605			
Leu	Leu	Ala	Ala	Met	Leu	Arg	Gly	Leu	Ala	Gly	Gly	Arg	Val	Leu	Ala
	610					615					620				
Leu	Leu	Glu	Glu	Val	Ser	Trp	Ala	Gly	Trp	Arg	Cys	Cys	Gly	Val	Gly
625					630					635				640	
Arg	Gly	Glu	Gly	Pro	Val	Thr	Ala	Ser	Val	Phe	Ala	Pro	Gly	Pro	Glu
				645					650					655	
Leu	His	Thr	Pro	Ala	Ser	Arg	Asp	Pro	Gly	Pro	Gly	Ala	Glu	Trp	Arg
			660					665					670		
Gly	Thr	Ser													
		675													

&lt;210&gt; 5015

&lt;211&gt; 1360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5015

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 300  
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 1360

&lt;210&gt; 5016

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5016

Met	Ser	Ala	Pro	Trp	Arg	Arg	Ala	Arg	Pro	Val	Thr	Thr	Ser	Gln	Arg
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Pro	Arg	Pro	Ser	Pro	Gln	Val	Pro	Pro	Leu	Ser	Ala	Gly	Pro	Ala	Ala
		20					25						30		
Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35				40						45			
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50				55					60					
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70					75					80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
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<211> 785
<212> DNA
<213> Homo sapiens
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<210> 5018  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Pro Pro Ser Ile Ala Ala Val Ser Gln Ser His Gly Arg Arg Ser  
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<210> 5019  
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 <212> DNA  
 <213> Homo sapiens

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 180  
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 720  
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<210> 5020  
 <211> 433  
 <212> PRT  
 <213> Homo sapiens

<400> 5020  
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 Pro His Gly Pro Pro Gly Pro Leu Gly Leu Leu Gly Val Arg Pro Gly  
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 Met Pro Pro Gln Pro Gln Gly Pro Ala Pro Leu Arg Arg Pro Asp Ser  
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 Ser Asp Asp Arg Tyr Val Met Thr Lys His Ala Thr Ile Tyr Pro Thr  
 85 90 95  
 Glu Glu Glu Leu Gln Ala Val Gln Lys Ile Val Ser Ile Thr Glu Arg  
 100 105 110  
 Ala Leu Lys Leu Val Ser Asp Ser Leu Ser Glu His Glu Lys Asn Lys  
 115 120 125  
 Asn Lys Glu Gly Asp Asp Lys Lys Glu Gly Gly Lys Asp Arg Ala Leu  
 130 135 140  
 Lys Gly Val Leu Arg Val Gly Val Phe Ala Lys Gly Leu Leu Leu Arg  
 145 150 155 160  
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 165 170 175  
 Lys Thr Leu Leu Ser Arg Ile Ala Glu Asn Leu Pro Lys Gln Leu Ala  
 180 185 190  
 Phe Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala  
 195 200 205  
 Ala Ile Ile Leu Asn Ser Cys Val Glu Pro Lys Met Gln Val Thr Ile  
 210 215 220  
 Thr Leu Thr Ser Pro Ile Ile Arg Glu Glu Asn Met Arg Glu Gly Asp  
 225 230 235 240  
 Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp Val Leu Asp Arg Gln  
 245 250 255  
 Lys Cys Leu Asp Ala Leu Ala Ala Leu Arg His Ala Lys Trp Phe Gln  
 260 265 270  
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```

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Arg Asp Leu Cys Gln Arg Val Pro Thr Trp Ser Asp Phe Pro Ser Trp
 290      295      300
Ala Met Glu Leu Leu Val Glu Lys Ala Ile Ser Ser Ala Ser Ser Pro
305      310      315      320
Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser
      325      330      335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys
      340      345      350
Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355      360      365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln
      370      375      380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg
385      390      395      400
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Asp Ser Asp Gly Val
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Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys Lys Asp Tyr Asp Asn
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Phe

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<210> 5021  
 <211> 494  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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Asp Tyr Lys Asn Tyr Leu Ala Leu Ile Asn His Arg Pro His Val Lys
      35           40           45
Gly Asn Ser Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro Val Tyr
      50           55           60
Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly
      65           70           75           80
Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
      85           90           95
Pro Thr Ile Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys Leu Arg
      100          105          110
Leu Phe Glu Tyr Leu His Glu Ser Leu Cys Asn Pro
      115          120

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&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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960

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 <213> Homo sapiens

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&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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 Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro  
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<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
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&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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Val Asp Val Arg Gly Ile Gln Val Arg Met Lys Trp Cys Ala Thr Cys
 20           25           30
His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn
 35           40           45
Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
 50           55           60
Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
 65           70           75           80
Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
 85           90           95
Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
 100          105          110
Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
 115          120          125
Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
 130          135          140
Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp
 145          150          155          160
Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln
 165          170          175
Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
 180          185          190
Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
 195          200          205
Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
 210          215          220
Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
 225          230          235          240
Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala
 245          250          255
Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
 260          265          270
Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro
 275          280          285
Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
 290          295          300
Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly
 305          310          315          320
Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His
 325          330          335
Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu
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Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
 355          360          365
Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
 370          375          380
Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
 385          390          395          400
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[illegible]

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<211> 2002
<212> DNA
<213> Homo sapiens
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<210> 5036

<211> 384

<212> PRT

<213> Homo sapiens

<400> 5036

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Asp	Ala	Gly	Ile	Phe	Phe	Thr	Arg	Ala	Val	Gln	Phe	Thr	Glu	Glu	Lys
			20					25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
		35					40				45				
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
	50					55				60					
Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

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65          70          75          80
Phe Leu Tyr Glu Lys Leu Asp Arg Lys Val Pro Ser Arg Val Thr Asn
      85          90          95
Gly Glu Leu Leu Ala Gln Tyr Met Ala Asp Ala Ala Ser Glu Leu Gly
      100        105        110
Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
      115        120        125
Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
      130        135        140
Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
      145        150        155        160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
      165        170        175
Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
      180        185        190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
      195        200        205
Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
      210        215        220
Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
      225        230        235        240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
      245        250        255
Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
      260        265        270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
      275        280        285
Ser Pro Thr Thr Ala Ala Ala Thr Met Pro Val Val Pro Ser Val Ala
      290        295        300
Ser Leu Ala Pro Pro Gly Glu Ala Ser Leu Cys Leu Glu Glu Val Ala
      305        310        315        320
Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
      325        330        335
Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
      340        345        350
Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
      355        360        365
Gly Asn Lys Lys Gly Lys Val Pro Val Thr Tyr Leu Glu Leu Leu Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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		20						25					30		
Ile	Cys	Lys	Gln	Ser	Met	Ser	Val	Ser	Lys	Glu	Tyr	Asn	Leu	Arg	Arg
		35					40					45			
His	Tyr	Gln	Thr	Asn	His	Ser	Lys	His	Tyr	Asp	Gln	Tyr	Thr	Glu	Arg
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Met	Arg	Asp	Glu	Lys	Leu	His	Glu	Leu	Lys	Lys	Gly	Leu	Arg	Lys	Tyr
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Leu	Leu	Gly	Ser	Ser	Asp	Thr	Glu	Cys	Pro	Glu	Gln	Lys	Gln	Val	Phe
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Ala	Asn	Pro	Ser	Pro	Thr	Gln	Lys	Ser	Pro	Val	Gln	Pro	Val	Glu	Asp
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Leu	Ala	Gly	Asn	Leu	Trp	Glu	Lys	Leu	Arg	Glu	Lys	Ile	Arg	Ser	Phe
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Val	Ala	Tyr	Ser	Ile	Ala	Ile	Asp	Glu	Ile	Thr	Asp	Ile	Asn	Asn	Thr
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Thr	Gln	Leu	Ala	Ile	Phe	Ile	Arg	Gly	Val	Asp	Glu	Asn	Phe	Asp	Val
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Ser	Glu	Glu	Leu	Leu	Asp	Thr	Val	Pro	Met	Thr	Gly	Thr	Lys	Ser	Gly
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Asn	Glu	Ile	Phe	Ser	Arg	Val	Glu	Lys	Ser	Leu	Lys	Lys	Phe	Cys	Ile
		180						185					190		
Asp	Trp	Ser	Lys	Leu	Val	Ser	Val	Ala	Ser	Thr	Gly	Thr	Pro	Ala	Met
		195					200					205			
Val	Asp	Ala	Asn	Asn	Gly	Leu	Val	Thr	Lys	Leu	Lys	Ser	Arg	Val	Ala
	210					215					220				
Thr	Phe	Cys	Lys	Gly	Ala	Glu	Leu	Lys	Ser	Ile	Cys	Cys	Ile	Ile	His
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Pro	Glu	Ser	Leu	Cys	Ala	Gln	Lys	Leu	Lys	Met	Asp	His	Val	Met	Asp
			245					250						255	
Val	Val	Val	Lys	Ser	Val	Asn	Trp	Ile	Cys	Ser	Arg	Gly	Leu	Asn	His
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Ser	Glu	Phe	Thr	Thr	Leu	Leu	Tyr	Glu	Leu	Asp	Ser	Gln	Tyr	Gly	Ser
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Lys Arg Phe Phe Glu Ser	Leu Glu Glu Ile Asp	Ser Phe Met Ser Ser		
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Arg Gly Lys Pro Leu Pro	Gln Leu Ser Ser Ile	Asp Trp Ile Arg Asp		
	325	330	335	
Leu Ala Phe Leu Val Asp	Met Thr Met His Leu	Asn Ala Leu Asn Ile		
	340	345	350	
Ser Leu Gln Gly His Ser	Gln Ile Val Thr Gln	Met Tyr Asp Leu Ile		
	355	360	365	
Arg Ala Phe Leu Ala Lys	Leu Cys Leu Trp Glu	Thr His Leu Thr Arg		
	370	375	380	
Asn Asn Leu Ala His Phe	Pro Thr Leu Lys Leu	Ala Ser Arg Asn Glu		
385	390	395	400	
Ser Asp Gly Leu Asn Tyr	Ile Pro Lys Ile Ala	Glu Leu Lys Thr Glu		
	405	410	415	
Phe Gln Lys Arg Leu Ser	Asp Phe Lys Leu Tyr	Glu Ser Glu Leu Thr		
	420	425	430	
Leu Phe Ser Ser Pro Phe	Ser Thr Lys Ile Asp	Ser Val His Glu Glu		
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Leu Gln Met Glu Val Ile	Asp Leu Gln Cys Asn	Thr Val Leu Lys Thr		
	450	455	460	
Lys Tyr Asp Lys Val Gly	Ile Pro Glu Phe Tyr	Lys Tyr Leu Trp Gly		
465	470	475	480	
Ser Tyr Pro Lys Tyr Lys	His His Cys Ala Lys	Ile Leu Ser Met Phe		
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Gly Ser Thr Tyr Ile Cys	Glu Gln Leu Phe Ser	Ile Met Lys Leu Ser		
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Lys Thr Lys Tyr Cys Ser	Gln Leu Lys Asp Ser	Gln Trp Asp Ser Val		
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Leu His Ile Ala Thr				
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&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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 3059

&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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 Val Leu Lys Leu Pro Trp Thr Gln Val Gly Phe Ser Leu Leu Phe Leu  
 20 25 30  
 Tyr Leu Gly Ser Gly Gly Trp Arg Phe Ile Arg Val Phe Ile Lys Thr  
 35 40 45  
 Ile Arg Arg Asp Ile Phe Gly Gly Leu Val Leu Leu Lys Val Lys Ala  
 50 55 60  
 Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe  
 65 70 75 80  
 Ala Ser Thr Val Arg Arg His Pro Asp Lys Thr Ala Leu Ile Phe Glu  
 85 90 95  
 Gly Thr Asp Thr His Trp Thr Phe Arg Gln Leu Asp Glu Tyr Ser Ser  
 100 105 110  
 Ser Val Ala Asn Phe Leu Gln Ala Arg Gly Leu Ala Ser Gly Asp Val

115	120	125
Ala Ala Ile Phe Met Glu Asn Arg Asn Glu Phe Val Gly Leu Trp Leu		
130	135	140
Gly Met Ala Lys Leu Gly Val Glu Ala Ala Leu Ile Asn Thr Asn Leu		
145	150	155
Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala		
165	170	175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala		
180	185	190
Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro		
195	200	205
Gly Ala Val Pro Pro Ser Thr Glu His Leu Asp Pro Leu Leu Lys Asp		
210	215	220
Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys		
225	230	235
Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala		
245	250	255
Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr		
260	265	270
Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu		
275	280	285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His		
290	295	300
Gly Met Thr Val Val Ile Arg Lys Lys Phe Ser Ala Ser Arg Phe Trp		
305	310	315
Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu		
325	330	335
Leu Cys Arg Tyr Leu Leu Asn Gln Pro Pro Arg Glu Ala Glu Asn Gln		
340	345	350
His Gln Val Arg Met Ala Leu Gly Asn Ala Ser Gly Ser Pro Ser Gly		
355	360	365
Pro Thr Phe Pro Ala Ala Ser Thr Tyr Pro Arg Trp Leu Ser Ser Thr		
370	375	380
Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly		
385	390	395
Ala Cys Gly Phe Asn Ser Arg Ile Leu Ser Phe Val Tyr Pro Ile Arg		
405	410	415
Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp		
420	425	430
Gly Val Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Gln Leu Val Gly		
435	440	445
Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn		
450	455	460
Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly		
465	470	475
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly		
485	490	495
Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly		
500	505	510
Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu		
515	520	525
Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu		
530	535	540
Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp		

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			565						570					575	
Arg	Pro	Ile	Phe	Leu	Arg	Leu	Leu	Pro	Glu	Leu	His	Lys	Thr	Gly	Thr
		580						585					590		
Tyr	Lys	Phe	Gln	Lys	Thr	Glu	Leu	Arg	Lys	Glu	Ala	Phe	Asp	Pro	Ala
	595						600					605			
Ile	Val	Lys	Thr	Arg	Cys	Ser	Ile								
610							615								

&lt;210&gt; 5041

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5041

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1140

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2461

&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr

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Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu			
35	40	45	
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser			
50	55	60	
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu			
65	70	75	80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu			
85	90	95	
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr			
100	105	110	
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp			
115	120	125	
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro			
130	135	140	
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe			
145	150	155	160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu			
165	170	175	
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile			
180	185	190	
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His			
195	200	205	
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala			
210	215	220	
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro			
225	230	235	240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu			
245	250	255	
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu			
260	265	270	
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met			
275	280	285	
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val			
290	295	300	
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu			
305	310	315	320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly			
325	330	335	
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys			
340	345	350	
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala			
355	360	365	
Pro His Trp Lys Ser Leu Gln Gln Asp Val Thr Ala Val Pro Met			
370	375	380	
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro			
385	390	395	400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu			
405	410	415	
Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala			
420	425	430	
Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln			

435	440	445
Gln Glu Ala Ser Ala Leu Arg	Glu Glu Thr Glu Ala Trp	Ala Arg Pro
450	455	460
His Glu Ser Leu Ala Arg	Glu Glu Ala Leu Thr	Ala Leu Gly Lys Leu
465	470	475
Leu Tyr Leu Leu Asp Gly Met	Leu Asp Gly Gln Val	Asn Ser Gly Ile
485	490	495
Ala Ala Thr Pro Ala Ser	Ala Ala Thr Leu Asp	Val Ala Val
500	505	510
Arg Arg Gly Leu Ser His	Gly Ala Gln Arg	Leu Leu Cys Val
515	520	525
Gly Gln Leu Asp Arg Pro	Pro Asp Leu Ala His	Asp Gly Arg Ser Leu
530	535	540
Trp Leu Asn Ile Arg Gly	Lys Glu Ala Ala	Ala Leu Ser Met Phe His
545	550	555
Val Ser Thr Pro Leu Pro	Val Met Thr Gly Gly	Phe Leu Ser Cys Ile
565	570	575
Leu Gly Leu Val Leu Pro	Leu Ala Tyr Gly Phe	Gln Pro Asp Leu Val
580	585	590
Leu Val Ala Leu Gly Pro	Gly His Gly Leu Gln	Gly Pro His Ala Ala
595	600	605
Leu Leu Ala Ala Met Leu	Arg Gly Leu Ala Gly	Gly Arg Val Leu Ala
610	615	620
Leu Leu Glu Glu Asn Ser	Thr Pro Gln Leu Ala	Gly Ile Leu Ala Arg
625	630	635
Val Leu Asn Gly Glu Ala	Pro Pro Ser Leu Gly	Pro Ser Ser Val Ala
645	650	655
Ser Pro Glu Asp Val Gln	Ala Leu Met Tyr Leu	Arg Gly Gln Leu Glu
660	665	670
Pro Gln Trp Lys Met Leu	Gln Cys His Pro His	Leu Val Ala
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&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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 420  
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1800  
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1824

&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

Ala Gly Gly Thr Thr Val Ala Ala Gly Asn Leu Leu Asn Glu Ser Glu

```

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Lys Asp Cys Gly Gln Asp Arg Arg Ala Pro Gly Val Gln Pro Cys Arg
      20           25           30
Leu Val Thr Met Thr Ser Val Val Lys Thr Val Tyr Ser Leu Gln Pro
      35           40           45
Pro Ser Ala Leu Ser Gly Gly Gln Pro Ala Asp Thr Gln Thr Arg Ala
      50           55           60
Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser
      65           70           75           80
Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr
      85           90           95
Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr
      100          105          110
Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser
      115          120          125
Glu Glu Glu Leu Lys Asp Lys Asn Gln Leu Leu Glu Ala Val Asn Lys
      130          135          140
Gln Leu His Gln Lys Leu Thr Glu Thr Gln Gly Glu Leu Lys Asp Leu
      145          150          155          160
Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala
      165          170          175
Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu
      180          185          190
Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu
      195          200          205
Leu Glu Thr Leu Gln Glu Glu Lys Leu Phe Asn Glu Thr Ala Lys
      210          215          220
Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys
      225          230          235          240
Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln
      245          250          255
Val Asn Asp Leu Thr Thr Ala Leu Lys Glu Met Glu Gln Leu Leu Glu
      260          265          270
Met

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&lt;210&gt; 5045

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5045

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360

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 462

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 <213> Homo sapiens

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 Ser Leu Arg Leu Thr Ala Pro Ser Leu Trp Gly Gly Ser Val Ala Arg  
 35 40 45  
 Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro  
 50 55 60  
 Leu Tyr Ser Leu Asn Val Ala Ser Met Trp Leu Lys Leu Gly Arg Leu  
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 Tyr Met Gly Leu Glu His Lys Ala Ala Arg Asp Glu  
 85 90

<210> 5047  
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 <212> DNA  
 <213> Homo sapiens

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 480  
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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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Glu Phe Pro Asp Asn Asp Ser Leu Val Val Leu Phe Ala Gln Val Asn
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Cys Asn Gly Phe Thr Ile Glu Asp Glu Glu Leu Ser His Leu Gly Ser
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Pro Tyr Ile Ser Glu Ile Lys Gln Glu Ile Glu Ser His
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&lt;210&gt; 5049

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5049

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<211> 619

<212> PRT

<213> Homo sapiens

<400> 5050

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Gln	His	Val	Cys	Glu	Thr	Ile	Ile	Arg	Ile	Phe	Lys	Arg	His	Gly	Ala
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Val	Gln	Leu	Cys	Thr	Pro	Leu	Leu	Leu	Pro	Arg	Asn	Arg	Gln	Ile	Tyr
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Phe	Asp	Ile	Val	Thr	Ser	Thr	Thr	Asn	Ser	Phe	Leu	Pro	Thr	Ala	Glu
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Ile	Ile	Tyr	Thr	Ile	Tyr	Glu	Ile	Ile	Gln	Glu	Phe	Pro	Ala	Leu	Gln
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Glu	Arg	Asn	Tyr	Ser	Ile	Tyr	Leu	Asn	His	Thr	Met	Leu	Leu	Lys	Ala
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<213> Homo sapiens

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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Thr Ala Ser Thr Leu Asp Asp Asp Gly Asn Tyr Thr Ile Met Ala Ala
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Asn Pro Gln Gly Arg Ile Ser Cys Thr Gly Arg Leu Met Val Gln Ala
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      165        170        175
Pro Ile Gln Glu Arg Phe Phe Arg Pro His Phe Leu Gln Ala Pro Gly
      180        185        190
Asp Leu Thr Val Gln Glu Gly Lys Leu Cys Arg Met Asp Cys Lys Val
      195        200        205
Ser Gly Leu Pro Thr Pro Asp Leu Ser Trp Gln Leu Asp Gly Lys Pro
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Val Arg Pro Asp Ser Ala His Lys Met Leu Val Arg Glu Asn Gly Val
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His Ser Leu Ile Ile Glu Pro Val Thr Ser Arg Asp Ala Gly Ile Tyr
      245        250        255
Thr Cys Ile Ala Thr Asn Arg Ala Gly Gln Asn Ser Phe Ser Leu Glu
      260        265        270
Leu Val Val Ala Ala Lys Glu Ala His Lys Pro Pro Val Phe Ile Glu
      275        280        285
Lys Leu Gln Asn Thr Gly Val Ala Asp Gly Tyr Pro Val Arg Leu Glu
      290        295        300
Cys Arg Val Leu Gly Val Pro Pro Pro Gln Ile Phe Trp Lys Lys Glu
      305        310        315        320
Asn Glu Ser Leu Thr His Ser Thr Asp Arg Val Ser Met His Gln Asp
      325        330        335
Asn His Gly Tyr Ile Cys Leu Leu Ile Gln Gly Ala Thr Lys Glu Asp
      340        345        350
Ala Gly Trp Tyr Thr Val Ser Ala Lys Asn Glu Ala Gly Ile Val Ser
      355        360        365
Cys Thr Ala Arg Leu Asp Val Tyr Thr Gln Trp His Gln Gln Ser Gln
      370        375        380
Ser Thr Lys Pro Lys Lys Val Arg Pro Ser Ala Ser Arg Tyr Ala Ala
      385        390        395        400
Leu Ser Asp Gln Gly Leu Asp Ile Lys Ala Ala Phe Gln Pro Glu Ala
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<210> 5053  
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 <212> DNA  
 <213> Homo sapiens

<400> 5053

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&lt;210&gt; 5054

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5054

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Leu	Ala	Leu	Ala	Ser	Val	Pro	Cys	Ala	Gln	Gly	Ala	Cys	Pro	Ala	Ser
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Ala	Asp	Leu	Lys	His	Ser	Asp	Gly	Thr	Arg	Thr	Cys	Ala	Lys	Leu	Tyr
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Asp	Lys	Ser	Asp	Pro	Tyr	Tyr	Glu	Asn	Cys	Cys	Gly	Gly	Ala	Glu	Leu
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Ser	Leu	Glu	Ser	Gly	Ala	Asp	Leu	Pro	Tyr	Leu	Pro	Ser	Asn	Trp	Ala
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Asn	Thr	Ala	Ser	Ser	Leu	Val	Val	Ala	Pro	Arg	Cys	Glu	Leu	Thr	Val
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Trp	Ser	Arg	Gln	Gly	Lys	Ala	Gly	Lys	Thr	His	Lys	Phe	Ser	Ala	Gly
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Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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155

&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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4240

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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		20					25					30			
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
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Leu	Leu	Asp	Glu	Leu	Ile	Lys	Ser	Gly	Gln	Leu	Leu	Gly	Val	Lys	Phe
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Ile	Ala	Glu	Leu	Gly	Val	Pro	Leu	Ser	Gln	Val	Lys	Ser	Ile	Ser	Gly
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Thr	Ala	Gln	Asp	Gly	Asn	Thr	Glu	Pro	Leu	Pro	Pro	Asp	Ser	Gly	Asp
			130					135						140	
Lys	Asn	Leu	Val	Ile	Gln	Lys	Ser	Lys	Asp	Glu	Ala	Gln	Asp	Asn	Gly
			145					150						155	
Ala	Thr	Ile	Met	Pro	Ile	Ile	Thr	Glu	Ser	Phe	Ser	Leu	Ser	Ala	Glu
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Asp	Tyr	Glu	Met	Lys	Lys	Ile	Ile	Val	Thr	Asp	Ser	Asp	Asp	Asp	Asp
			180					185						190	
Asp	Asp	Val	Ile	Phe	Cys	Ser	Glu	Ile	Leu	Pro	Thr	Lys	Glu	Thr	Leu
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Pro	Ser	Asn	Asn	Thr	Val	Ala	Gln	Val	Gln	Ser	Asn	Pro	Gly	Pro	Val
			210					215						220	
Ala	Ile	Ser	Asp	Val	Ala	Pro	Ser	Ala	Ser	Asn	Asn	Ser	Pro	Pro	Leu
			225					230						235	
Thr	Asn	Ile	Thr	Pro	Thr	Gln	Lys	Leu	Pro	Thr	Pro	Val	Asn	Gln	Ala
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Thr	Leu	Ser	Gln	Thr	Gln	Gly	Ser	Glu	Lys	Leu	Leu	Val	Ser	Ser	Ala
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			275					280						285	
Ser	Thr	Pro	Pro	Asn	Val	Ser	Ser	Ser	Leu	Pro	Asn	His	Met	Pro	Ser
			290					295						300	
Ser	Ile	Asn	Leu	Leu	Val	Gln	Asn	Gln	Gln	Thr	Pro	Asn	Ser	Ala	Ile
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Leu	Thr	Gly	Asn	Lys	Ala	Asn	Glu	Glu	Glu	Glu	Glu	Glu	Ile	Ile	Asp
			325					330						335	
Asp	Asp	Asp	Asp	Thr	Ile	Ser	Ser	Ser	Pro	Asp	Ser	Ala	Val	Ser	Asn
			340					345						350	
Thr	Ser	Leu	Val	Pro	Gln	Ala	Asp	Thr	Ser	Gln	Asn	Thr	Ser	Phe	Asp
			355					360						365	
Gly	Ser	Leu	Ile	Gln	Lys	Met	Gln	Ile	Pro	Thr	Leu	Leu	Gln	Glu	Pro
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Leu	Ser	Asn	Ser	Leu	Lys	Ile	Ser	Asp	Ile	Ile	Thr	Arg	Asn	Thr	Asn
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Asp	Pro	Gly	Val	Gly	Ser	Lys	His	Leu	Met	Glu	Gly	Gln	Lys	Ile	Ile
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Thr	Leu	Asp	Thr	Ala	Thr	Glu	Ile	Glu	Gly	Leu	Ser	Thr	Gly	Cys	Lys
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Val	Tyr	Ala	Asn	Ile	Gly	Glu	Asp	Thr	Tyr	Asp	Ile	Val	Ile	Pro	Val
			435					440						445	
Lys	Asp	Asp	Pro	Asp	Glu	Gly	Glu	Ala	Arg	Leu	Glu	Asn	Glu	Ile	Pro
			450					455						460	
Lys	Thr	Ser	Gly	Ser	Glu	Met	Ala	Asn	Lys	Arg	Met	Lys	Val	Lys	His
			465					470						475	
Asp	Asp	His	Tyr	Glu	Leu	Ile	Val	Asp	Gly	Arg	Val	Tyr	Tyr	Ile	Cys
			485					490						495	
Ile	Val	Cys	Lys	Arg	Ser	Tyr	Val	Cys	Leu	Thr	Ser	Leu	Arg	Arg	His

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		515					520					525					
Lys	Val	Phe	Pro	Leu	Ala	Glu	Tyr	Arg	Thr	Lys	His	Glu	Ile	His	His		
	530					535					540						
Thr	Gly	Glu	Arg	Arg	Tyr	Gln	Cys	Leu	Ala	Cys	Gly	Lys	Ser	Phe	Ile		
545					550					555						560	
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				565					570						575		
Pro	Ser	Gly	Asp	Ser	Lys	Leu	Tyr	Arg	Leu	His	Pro	Cys	Arg	Ser	Leu		
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Gln	Ile	Arg	Gln	Tyr	Ala	Tyr	His	Ser	Asp	Arg	Ser	Ser	Thr	Ile	Pro		
	595					600						605					
Ala	Met	Lys	Asp	Asp	Gly	Ile	Gly	Tyr	Lys	Val	Asp	Thr	Gly	Lys	Glu		
	610					615					620						
Pro	Pro	Val	Gly	Thr	Thr	Ser	Thr	Gln	Asn	Lys	Pro	Met	Thr	Trp			
625					630				635						640		
Glu	Asp	Ile	Phe	Ile	Gln	Gln	Glu	Asn	Asp	Ser	Ile	Phe	Lys	Gln	Asn		
				645				650						655			
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<213> Homo sapiens
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 <213> Homo sapiens

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 Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala  
 35 40 45  
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu  
 50 55 60  
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile  
 65 70 75 80  
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu  
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 <212> DNA  
 <213> Homo sapiens

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Arg	Leu	Ser	Leu	Glu	Lys	Asp	Ser	Gln	Leu	Val	Ser	Leu	Cys	Ile	His
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Ala	Leu	Cys	Pro	Glu	Arg	Pro	Ser	Gln	Ser	Ala	Arg	Ala	Val	Ile	Thr
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&lt;210&gt; 5061

&lt;211&gt; 2462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5061

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&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<213> Homo sapiens

&lt;400&gt; 5064

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 35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
 50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
 65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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 20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
 35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
 50           55           60
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 65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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<210> 5067  
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 <213> Homo sapiens

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<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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<212> PRT

<213> Homo sapiens

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&lt;210&gt; 5072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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			20					25					30		
Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
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<212> DNA  
<213> Homo sapiens

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<211> 240
<212> PRT
<213> Homo sapiens
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Thr	Thr	Val	Leu	Ser	Asp	Gln	Gln	Val	Val	Glu	Leu	Ile	Pro	Gly	Gly		
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Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala		
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<211> 444
<212> DNA
<213> Homo sapiens
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<400> 5075



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 Cys Trp Asp Gly Gly Gly Ser Gly Asn Phe Ser Ser Pro Gly Thr Leu  
 35 40 45  
 Arg Glu Thr Glu Val Ile Thr Ala Val Leu Glu Leu Gly Arg Gly Gly  
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<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
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Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
			50			55					60				
Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
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 465 470 475 480  
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&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

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<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
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Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
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Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

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 <212> DNA  
 <213> Homo sapiens

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<210> 5082  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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Ala Ala Gln Ala Trp His Cys Pro Pro Gly Gln Gly His Ser Val Trp
20      25      30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35      40      45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50      55      60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65					70					75					80
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
				85					90					95	
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100				105						110		

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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 1856

&lt;210&gt; 5084

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

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			20					25					30		
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
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Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
			85					90					95		
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
			100					105					110		
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
		115					120					125			
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	130					135				140					
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
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Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
			165					170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
		180					185						190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
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His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val



210	215	220
Thr Pro Lys Cys Glu Asp	Cys Gln Ser Leu Val	Lys Pro Asp Ile Val
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Phe Phe Gly Glu Ser Leu	Pro Ala Arg Phe	Phe Ser Cys Met Gln Ser
245	250	255
Asp Phe Leu Lys Val Asp	Leu Leu Val Met Gly	Thr Ser Leu Gln
260	265	270
Val Gln Pro Phe Ala Ser	Leu Ile Ser Lys Ala	Pro Leu Ser Thr Pro
275	280	285
Arg Leu Leu Ile Asn Lys	Glu Lys Ala Gly Gln	Ser Asp Pro Phe Leu
290	295	300
Gly Met Ile Met Gly Leu	Gly Gly Gly Met Asp	Phe Asp Ser Lys Lys
305	310	315
Ala Tyr Arg Asp Val Ala	Trp Leu Gly Glu Cys	Asp Gln Gly Cys Leu
325	330	335
Ala Leu Ala Glu Leu Leu	Gly Trp Lys Lys Glu	Leu Glu Asp Leu Val
340	345	350
Arg Arg Glu His Ala Ser	Ile Asp Ala Gln Ser	Gly Ala Gly Val Pro
355	360	365
Asn Pro Ser Thr Ser Ala	Ser Pro Lys Lys Ser	Pro Pro Pro Ala Lys
370	375	380
Asp Glu Ala Arg Thr Thr	Glu Arg Glu Lys Pro	Gln
385	390	395

&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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<210> 5086

<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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			20					25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35				40					45				
Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
	50					55				60					
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
	65				70					75				80	
Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
			85					90					95		
Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
			100					105					110		
Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
	115					120					125				
Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
	130					135				140					
Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
	145				150					155				160	
Ala	Ile	Val	Lys	Met	Leu	Asp	Ala	Ala	Val	Ile	Lys	Met	Glu	Gly	Gly
			165					170					175		
Thr	Glu	Asn	Asp	Leu	Arg	Ile	Leu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Gln
			180					185					190		
Ala	Gly	Lys	Pro	Gly	Glu	Pro	Ser	Lys	Lys	Glu	Glu	Gly	Arg	Ala	Gly

195	200	205
Ala Gly Leu Gly Asp Gly Glu Arg Lys Thr Asn Asp Lys Asp Glu Lys		
210	215	220
Lys Glu Asp Gly Lys Gln Ala Glu Asn Asp Ser Ser Asn Asp Asp Lys		
225	230	235
Thr Lys Lys Ser Glu Gly Asp Gly Asp Lys Glu Glu Lys Lys Glu Asp		
245	250	255
Ser Glu Lys Glu Ala Lys Lys Ser Ser Lys Lys Arg Asn Arg Lys His		
260	265	270
Ser Gly Asp Asp Ser Phe Asp Glu Gly Ser Val Ser Glu Ser Glu Ser		
275	280	285
Glu Ser Glu Ser Gly Gln Ala Glu Glu Glu Lys Glu Glu Ala Glu Glu		
290	295	300
Ala Leu Lys Glu Lys Glu Lys Pro Lys Glu Glu Glu Trp Glu Lys Pro		
305	310	315
Lys Asp Ala Ala Gly Leu Glu Cys Lys Pro Arg Pro Leu His Lys Thr		
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Cys Ser Leu Phe Met Arg Asn Ile Ala Pro Asn Ile Ser Arg Ala Glu		
340	345	350
Ile Ile Ser Leu Cys Lys Arg Tyr Pro Gly Phe Met Arg Val Ala Leu		
355	360	365
Ser Glu Pro Gln Pro Glu Arg Arg Phe Phe Arg Arg Gly Trp Val Thr		
370	375	380
Phe Asp Arg Ser Val Asn Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn		
385	390	395
Ile Arg Leu Arg Glu Cys Glu Leu Ser Pro Gly Val Asn Arg Asp Leu		
405	410	415
Thr Arg Arg Val Arg Asn Ile Asn Gly Ile Thr Gln His Lys Gln Ile		
420	425	430
Val Arg Asn Asp Ile Lys Leu Ala Ala Lys Leu Ile His Thr Leu Asp		
435	440	445
Asp Arg Thr Gln Leu Trp Ala Ser Glu Pro Gly Thr Pro Pro Leu Pro		
450	455	460
Thr Ser Leu Pro Ser Gln Asn Pro Ile Leu Lys Asn Ile Thr Asp Tyr		
465	470	475
Leu Ile Glu Glu Val Ser Ala Glu Glu Glu Glu Leu Leu Gly Ser Ser		
485	490	495
Gly Gly Ala Pro Pro Glu Glu Pro Pro Lys Glu Gly Asn Pro Ala Glu		
500	505	510
Ile Asn Val Glu Arg Asp Glu Lys Leu Ile Lys Val Leu Asp Lys Leu		
515	520	525
Leu Leu Tyr Leu Arg Ile Val His Ser Leu Asp Tyr Tyr Asn Thr Cys		
530	535	540
Glu Tyr Pro Asn Glu Asp Glu Met Pro Asn Arg Cys Gly Ile Ile His		
545	550	555
Val Arg Gly Pro Met Pro Pro Asn Arg Ile Ser His Gly Glu Val Leu		
565	570	575
Glu Trp Gln Lys Thr Phe Glu Glu Lys Leu Thr Pro Leu Leu Ser Val		
580	585	590
Arg Glu Ser Leu Ser Glu Glu Glu Ala Gln Lys Met Gly Arg Lys Asp		
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Pro Glu Gln Glu Val Glu Lys Phe Val Thr Ser Asn Thr Gln Glu Leu		
610	615	620
Gly Lys Asp Lys Trp Leu Cys Pro Leu Ser Gly Lys Lys Phe Lys Gly		

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				645					650					655	
Glu	Glu	Val	Lys	Lys	Glu	Val	Ala	Phe	Phe	Asn	Asn	Phe	Leu	Thr	Asp
			660					665					670		
Ala	Lys	Arg	Pro	Ala	Leu	Pro	Glu	Ile	Lys	Pro	Ala	Gln	Pro	Pro	Gly
		675					680					685			
Pro	Ala	Gln	Ile	Leu	Pro	Pro	Gly	Leu	Thr	Pro	Gly	Leu	Pro	Tyr	Pro
	690					695				700					
His	Gln	Thr	Pro	Gln	Gly	Leu	Met	Pro	Tyr	Gly	Gln	Pro	Arg	Pro	Pro
705				710						715				720	
Ile	Leu	Gly	Tyr	Gly	Ala	Gly	Ala	Val	Arg	Pro	Ala	Val	Pro	Thr	Gly
			725					730				735			
Gly	Pro	Pro	Tyr	Pro	His	Ala	Pro	Tyr	Gly	Ala	Gly	Arg	Gly	Asn	Tyr
		740					745				750				
Asp	Ala	Phe	Arg	Gly	Gln	Gly	Gly	Tyr	Pro	Gly	Lys	Pro	Arg	Asn	Arg
	755					760				765					
Met	Val	Arg	Gly	Asp	Pro	Arg	Ala	Ile	Val	Glu	Tyr	Arg	Asp	Leu	Asp
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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

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Asp	Cys	Gly	Leu	Pro	Thr	Pro	Gln	Ala	Asn	Cys	Pro	Pro	Gly	His	His



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Arg His Ile Ala Thr Asp	Phe Glu Thr Gly Leu Gly	Pro Trp Asn Arg
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Ser Glu Gly Trp Ser Arg	Asn His Arg Ala Gly Gly	Pro Glu Arg Pro
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Leu

465

&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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<400> 5091

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&lt;210&gt; 5092

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5092

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65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
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Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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			20				25					30			
Asp	Val	Val	Lys	Val	Arg	Leu	Gln	Ser	Gln	Arg	Pro	Ser	Met	Ala	Ser
		35				40					45				
Glu	Leu	Met	Pro	Ser	Ser	Arg	Leu	Trp	Ser	Leu	Ser	Tyr	Thr	Lys	Leu

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Pro Ser Leu Ser Tyr Thr Lys Trp Lys Cys Leu Leu Tyr Cys Asn Gly		
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Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr		80
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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val		95
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Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro		110
	115	120
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala		125
	130	135
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp		140
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Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val		155
	160	165
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln		170
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His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala		185
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Gln Gly Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu		200
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Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp		215
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Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys		230
	235	240
Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile Ser Gly		245
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Thr Val Ala Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln		260
	265	270
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu		275
	280	285
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser		290
	295	300
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala		305
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Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser		320
	325	330
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	360	365

&lt;210&gt; 5095

&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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 <212> PRT  
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<211> 114

<212> PRT

<213> Homo sapiens

<400> 5098

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<210> 5100
<211> 102
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 5100

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 35 40 45  
 Leu Gly Thr Leu Ser Cys Val Lys Glu Asn Lys Gly Lys Glu Thr Ser  
 50 55 60  
 Leu Cys Ala Pro Ser Leu Pro Asn Lys His Glu Ser Asp Val Leu Gln  
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

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		20						25					30		
Pro	Thr	Ala	Val	Thr	Ala	Pro	His	Ser	Ser	Ser	Trp	Asp	Thr	Tyr	Tyr
		35					40					45			
Gln	Pro	Arg	Ala	Leu	Glu	Lys	His	Ala	Asp	Ser	Ile	Leu	Ala	Leu	Ala
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Ser	Val	Phe	Trp	Ser	Ile	Ser	Tyr	Tyr	Ser	Ser	Pro	Phe	Ala	Phe	Phe
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Leu	Arg	Gly	Ile	Gly	Arg	Trp	Thr	Asn	Pro	Gln	Tyr	Arg	Gln	Phe	Ile
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Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
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Ile Thr Thr Thr
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&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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<213> Homo sapiens

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Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
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Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
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115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
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<213> Homo sapiens

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<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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			20				25					30			
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40				45				
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
		50				55				60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65					70				75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90					95		
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
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Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
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					His
					Val
					Thr
					Phe
					Thr
					Glu
					Arg
					Ser
					Met
					Met
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Asp	Lys	Asp	Leu	Ser	His
					Trp
					Glu
					Thr
					Arg
					Thr
					Tyr
					Glu
					Phe
					Thr
					Leu
		165		170	175
Gln	Ser				

&lt;210&gt; 5107

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5107

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35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
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<210> 5109  
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<212> DNA  
<213> Homo sapiens

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<210> 5110  
<211> 206  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5110

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Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
 35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
 50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
 65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
 85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
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Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

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 <212> PRT  
 <213> Homo sapiens

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 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly  
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 245 250 255  
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala  
 260 265 270  
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys  
 275 280 285  
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu  
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 Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Asp Ile Arg  
 325 330 335  
 Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu



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          370          375          380
Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
          385          390          395          400
Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
          405          410          415
Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
          420          425          430
Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
          435          440          445
Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
          450          455          460
Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
          465          470          475          480
Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
          485          490          495
Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
          500          505          510
Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
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Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
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Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
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Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
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&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

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 <212> PRT  
 <213> Homo sapiens

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 Met Val Gln Pro Leu Leu His Val Pro Pro Val Gly Leu Cys Asp Leu  
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 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser  
 20 25 30  
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
 65 70 75 80  
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
 85 90 95  
 Thr Phe Phe Pro  
 100

<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

<400> 5115  
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 120  
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 180  
 ggtgtctacc agccgccgcc atcccagaag gaaagcctct tcccatgagt gcctgtgggt  
 240  
 gggcggtgag ctcaacaccc acaaagggca gaaggcctgg gggcagtgag gtgatgggtga  
 300  
 gggcatggga agcagatgct gctgaggggt ggtggaggga gaaatggaga cccagcacc  
 360  
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 420  
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 480  
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 600  
 gagcaggtgc atgcgcagcc ggtccaccg cttttttctt tgtacatata ttaccacagc  
 660  
 caccaccacc ccgaccaggg tgatgaggaa gaaggggccc aacacatagc ccaccatgga  
 720  
 gtcgctgttg gcctgggggg cattgggcac agtgggtgta ctcatgacat cagcagccgg  
 780

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 840  
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 900  
 gctgctagga tgcgggccag caacagcgga ncaggagggtg gttcccacgg cgctgggnag  
 960  
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 1003

<210> 5116  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 5116  
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 20 25 30  
 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His  
 35 40 45  
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys  
 50 55 60  
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu  
 65 70 75 80  
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu  
 85 90 95  
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His  
 100 105 110  
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Gly Pro  
 115 120 125  
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly  
 130 135 140  
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser  
 145 150 155 160  
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser  
 165 170 175  
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly  
 180 185 190  
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly  
 195 200 205  
 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly  
 210 215 220  
 Gly Cys  
 225

<210> 5117  
 <211> 1180  
 <212> DNA  
 <213> Homo sapiens

<400> 5117  
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 120  
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatctttga ttctagaatt  
 180  
 gctgcccaag ctgttaccaa gaactgtcaa aaagcatccc gggaatggca ggggagagac  
 240  
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 300  
 aaggaaatca gccgctgcat catctcctcc tgcccagggc cccatgctat tgtcctagtt  
 360  
 ctgctgctgg gccgctacac agaggaggag cagaaaaccg ttgcattgat caaggctgtc  
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 660  
 gcttactttt ctgatgacat atacaaggac acagaggaaa ggctgaaaca acgggaagag  
 720  
 gttttgagga aaatctacac tgaccaatta aatgaagaaa ttaaactagt agaagaggat  
 780  
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 840  
 gaaaaaataa aaaatataag ggaagaagct gagagaaata tatttaaaga tgtttttaat  
 900  
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 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met	Ala	Glu	Ser	Glu	Asp	Arg	Ser	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys
1				5				10				15			
Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
		20					25				30				
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35				40				45					
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50				55			60							
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

```

65          70          75          80
Ile Ser Arg Cys Ile Ile Ser Ser Cys Pro Gly Pro His Ala Ile Val
      85          90          95
Leu Val Leu Leu Leu Gly Arg Tyr Thr Glu Glu Glu Gln Lys Thr Val
      100        105        110
Ala Leu Ile Lys Ala Val Phe Gly Lys Ser Ala Met Lys His Met Val
      115        120        125
Ile Leu Phe Thr Arg Lys Glu Glu Leu Glu Gly Gln Ser Phe His Asp
      130        135        140
Phe Ile Ala Asp Ala Asp Val Gly Leu Lys Ser Ile Val Lys Glu Cys
145          150          155          160
Gly Asn Arg Cys Cys Ala Phe Ser Asn Ser Lys Lys Thr Ser Lys Ala
      165        170        175
Glu Lys Glu Ser Gln Val Gln Glu Leu Val Glu Leu Ile Glu Lys Met
      180        185        190
Val Gln Cys Asn Glu Gly Ala Tyr Phe Ser Asp Asp Ile Tyr Lys Asp
      195        200        205
Thr Glu Glu Arg Leu Lys Gln Arg Glu Glu Val Leu Arg Lys Ile Tyr
      210        215        220
Thr Asp Gln Leu Asn Glu Glu Ile Lys Leu Val Glu Glu Asp Lys His
225          230          235          240
Lys Ser Glu Glu Glu Lys Glu Lys Glu Ile Lys Leu Leu Lys Leu Lys
      245        250        255
Tyr Asp Glu Lys Ile Lys Asn Ile Arg Glu Glu Ala Glu Arg Asn Ile
      260        265        270
Phe Lys Asp Val Phe Asn Arg Ile Trp Lys Met Leu Ser Glu Ile Trp
      275        280        285
His Arg Phe Leu Ser Lys Cys Lys Phe Tyr Ser Ser
      290        295        300

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<210> 5119  
 <211> 1450  
 <212> DNA  
 <213> Homo sapiens

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<400> 5119
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120
cttctgtgtc gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc
180
agagaggcat ttgccccagt agctatgatt ataatttgca atgacagcca cagtgatTTC
240
atccttctgg gcttctctaa caagccacat ttggagaaga tactttttng gatcattttt
300
atTTTTtatt ttttgactct tgcaggaaat atggTcatag ttcttTgtgc cttgaaggat
360
ccaaaactcc acatccctat gtattttctt ctttccaacc tttccttggt agacctctgt
420
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480
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540

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 660  
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 720  
 atggtggatg atgttgtttg tgaagtccca gctctgattc agctctccag tactgatact  
 780  
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 840  
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 1200  
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 1440  
 aaataaaata  
 1450

&lt;210&gt; 5120

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5120

Met	Ile	Ile	Ile	Cys	Asn	Asp	Ser	His	Ser	Asp	Phe	Ile	Leu	Leu	Gly
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Phe	Ser	Asn	Lys	Pro	His	Leu	Glu	Lys	Ile	Leu	Phe	Xaa	Ile	Ile	Phe
		20						25				30			
Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35				40					45				
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50				55					60					
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
65				70					75				80		
Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
		85				90							95		
Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
		100				105					110				
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

```

      115              120              125
Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
      130              135              140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
      145              150              155              160
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
      165              170              175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
      180              185              190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
      195              200              205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
      210              215              220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
      225              230              235              240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
      245              250              255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
      260              265              270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
      275              280              285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
      290              295              300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
      305              310

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&lt;210&gt; 5121

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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120
atagtggagc tgcccactct agaggagctg aaagtagatg aggtgaaaat tagttctgct
180
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240
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300
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420
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540
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660

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<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

Met	Pro	Gly	Ile	Val	Glu	Leu	Pro	Thr	Leu	Glu	Glu	Leu	Lys	Val	Asp
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Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
			20					25					30		
Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
		35					40					45			
Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
		50				55					60				
Lys	Cys	Ala	Leu	Asp	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu	
65					70				75					80	
Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
			85						90				95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
			100					105					110		
Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
		115					120					125			
Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
		130				135					140				
Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
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Ala	Thr	His	Gly	Ser	Arg	Phe	Tyr	Phe	Trp	Thr	Lys				
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<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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 120  
 agccatagga tagatcctgg agcttccctg agcctgtttt cttgcctggg agtttagccat  
 180  
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 240



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 660  
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 1139

&lt;210&gt; 5124

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

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1				5					10					15	
Thr	Pro	Lys	Pro	His	Leu	Ala	Ala	His	Ser	Cys	Ser	Leu	Leu	Gln	Lys
			20					25					30		
Gln	Ala	Cys	Met	Leu	Ile	Arg	Asn	Leu	Val	Ala	His	Gly	Gln	Ala	Phe
		35					40					45			
Ser	Lys	Pro	Ile	Leu	Asp	Leu	Gly	Ala	Glu	Ala	Leu	Ile	Met	Gln	Ala
	50				55						60				
Arg	Ser	Ala	His	Arg	Asp	Cys	Glu	Asp	Val	Ala	Lys	Ala	Ala	Leu	Arg
65				70					75					80	
Asp	Leu	Gly	Cys	His	Val	Glu	Leu	Arg	Glu	Leu	Trp	Thr	Gly	Gln	Arg
			85					90						95	
Gly	Asn	Leu	Ala	Pro											

&lt;210&gt; 5125

&lt;211&gt; 6244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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120  
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240  
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660  
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1140  
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1200  
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1260  
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1380  
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1440  
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&lt;210&gt; 5126

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 <212> PRT  
 <213> Homo sapiens

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 Thr Phe Ser Gly Leu Val Ser Thr Phe Glu Val Val Leu Trp Leu Asn  
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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala  
 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln  
 50 55 60  
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu  
 65 70 75 80  
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly  
 85 90 95  
 Arg Ser Asp Thr Leu Val Ser Phe Phe Gln Glu Thr Ile Ala Phe Thr  
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 Asp Val Leu Val Val  
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<210> 5127  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

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 300  
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 <211> 55  
 <212> PRT  
 <213> Homo sapiens

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Ala Ser Ser Thr Thr Ile Ser  
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<210> 5129  
<211> 745  
<212> DNA  
<213> Homo sapiens

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600  
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720  
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745

<210> 5130  
<211> 111  
<212> PRT  
<213> Homo sapiens

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Trp Ala Leu Ala Gly Ala Arg Gln Leu Phe Leu Ala Pro Gln Gln Ile  
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Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
35 40 45  
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
50 55 60  
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
65 70 75 80  
Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

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<210> 5131  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

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 600  
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 789

<210> 5132  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 5132  
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 20 25 30  
 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly



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65          70          75          80
Ala Gly Lys Thr Glu Ala Ser Lys His Ile Met Gln Tyr Ile Ala Ala
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Val Thr Asn Pro Ser Gln Arg Ala Glu Val Glu Arg Val Lys Asp Val
      100         105         110
Leu Leu Lys Ser Thr Cys Val Leu Glu Ala Phe Gly Asn Ala Arg Thr
      115         120         125
Asn Arg Asn His Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Asn
      130         135         140
Phe Asp Phe Lys Gly Asp Pro Ile Gly Gly His Ile His Ser Tyr Leu
      145         150         155         160
Leu Glu Lys Ser Arg Val Leu Lys Gln His Val Gly Glu Arg Asn Phe
      165         170         175
His Ala Phe Tyr Gln Leu Leu Arg Gly Ser Glu Asp Lys Gln Leu His
      180         185         190
Glu Leu His Leu Glu Arg Asn Pro Ala Val Tyr Asn Phe Thr His Gln
      195         200         205
Gly Ala Gly Leu Asn Met Thr Val His Ser Ala Leu Asp Ser Asp Glu
      210         215         220
Gln Ser His Gln Ala Val Thr Glu Ala Met Arg Val Ile Gly Phe Ser
      225         230         235         240
Pro Glu Glu Val Glu Ser Val His Arg Ile Leu Ala Ala Ile Leu His
      245         250         255
Leu Gly Asn Ile Glu Phe Val
      260

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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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&lt;210&gt; 5134

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5134

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Gly Phe Trp Lys Arg Pro Pro Gln Arg Trp Ser Gly Gln Glu His Tyr
      20           25           30
His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu
      35           40           45
Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
      50           55           60
Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
      65           70           75           80
Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
      85           90           95
Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
      100          105          110
Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
      115          120          125
Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn
      130          135          140
Glu Asp Leu Leu Asn Glu Ile Lys Gln Leu Lys Asp Glu
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&lt;210&gt; 5135

&lt;211&gt; 1696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5135

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&lt;210&gt; 5136

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5136

Xaa Cys Glu Arg Leu Pro His Ala Pro Pro Pro Leu Arg Thr Met Phe  
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 Pro Ser Arg Arg Lys Ala Ala Gln Leu Pro Trp Glu Asp Gly Arg Ser  
 20 25 30  
 Gly Leu Leu Ser Gly Gly Leu Pro Arg Lys Cys Ser Val Phe His Leu  
 35 40 45  
 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln  
 50 55 60  
 Leu Ser Cys Ser Gly Asp Val Ala Arg Ala Val Arg Gly Gln Gly Gln  
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 Glu Thr Ser Gly Pro Pro Arg Ala Cys Pro Pro Glu Pro Pro Pro Glu

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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5138

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5138

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Asn	Ile	Leu	Ser	Ser	Ser	Asn	Pro	Cys	Leu	Val	His	His	Asp	His	Thr
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<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Asp	Leu	Arg	Ile	Asn	Leu	Trp	Asn	Phe	Glu	Ile	Thr	Asn	Gln	Ser	Phe
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Asn	Ile	Val	Asp	Ile	Lys	Pro	Ala	Asn	Met	Glu	Glu	Leu	Thr	Glu	Val
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Lys	Val	Trp	Asp	Leu	Asn	Met	Glu	Ser	Arg	Pro	Val	Glu	Thr	His	Gln
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Val	His	Asp	Tyr	Leu	Arg	Ser	Lys	Leu	Cys	Ser	Leu	Tyr	Glu	Asn	Asp
			325					330				335			
Cys	Ile	Phe	Asp	Lys	Phe	Glu	Cys	Val	Trp	Asn	Gly	Ser	Asp	Ser	Val
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Ile	Met	Thr	Gly	Ser	Tyr	Asn	Asn	Phe	Phe	Arg	Met	Phe	Asp	Arg	Asp

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370	375	380
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385	390	395
Lys Asp Glu Ile Ser Val Asp Ser Leu Asp Phe Ser Lys Lys Ile Leu		
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 <212> DNA  
 <213> Homo sapiens

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

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 35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Arg Glu Asp Asn Glu
 50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
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Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
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Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
130          135          140
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145          150          155          160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
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Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
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210          215          220
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&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

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Gln	Tyr	Pro	Arg	Lys	Ile	Leu	Glu	Cys	Val	Ile	Lys	Thr	Ile	Lys	Ala
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<211> 1885
<212> DNA
<213> Homo sapiens
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720

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 1860  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro	Ala	Thr	Ser	Glu	Lys	Glu	Ser	Ile	Leu	Leu	Phe	Pro	Asp	Leu	Arg
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Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

50                      55                      60  
 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                      70                      75                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
                     85                      90                      95  
 Ser Phe Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
                     100                      105                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
                     115                      120                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
                     130                      135                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                      150                      155                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
                     165                      170                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
                     180                      185                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
                     195                      200                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
                     210                      215                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                      230                      235                      240  
 Ser Ile Val Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe  
                     245                      250                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
                     260                      265                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
                     275                      280                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
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 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                      310

<210> 5147  
 <211> 2943  
 <212> DNA  
 <213> Homo sapiens

<400> 5147  
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 gccaccgct tcgtgtggc ggccggcagc gccgtctttg acgcatgtt caacggcggc  
 180  
 atggccacca cgtcggccga gatcgagctg ccggacgtgg agcccgagc cttcctggcg  
 240  
 ctgctgagat ttctatatc agatgaagtt caaattgggt cagaaacagt tatgaccact  
 300  
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 360  
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 420

gaacctcagc ttgctagtct ttgtctagat acaatagaca aaagcacaat ggatgcaata  
480  
agtgacagaag gggtttactga tattgatata gatacactct gtgcagtttt agagagagac  
540  
acactcagta ttcgagaaaag tcgacttttt ggagctgttg tacgctgggc agaagcagaa  
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660  
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720  
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780  
aaaccccag ttgaatacat tgaccgacca agatgctgtc tcaggggaaa ggaatgctgc  
840  
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1080  
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1200  
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1260  
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1320  
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1560  
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1680  
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1740  
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1860  
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1920  
tatgtagtac agttttaaag ctataaatgg aatttttgtt aaattcaca aaatgtgata  
1980  
taaacaggat ctaagactgg attccctgtc actaaactgc accactatac ctgtctctct  
2040



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 2160  
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 2220  
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 2280  
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 2340  
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 2520  
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 2580  
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 aaa  
 2943

&lt;210&gt; 5148

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5148

Ala	Arg	Leu	Phe	Asp	Glu	Pro	Gln	Leu	Ala	Ser	Leu	Cys	Leu	Asp	Thr
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Ile	Asp	Lys	Ser	Thr	Met	Asp	Ala	Ile	Ser	Ala	Glu	Gly	Phe	Thr	Asp
		20						25					30		
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
		35					40					45			
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50					55					60				
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70						75				80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90					95		
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
		100					105					110			
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg

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      115      120      125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130      135      140
Cys Ile Asn Arg Phe Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145      150      155      160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165      170      175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180      185      190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195      200      205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210      215      220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225      230      235      240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245      250      255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260      265      270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
      275      280      285
Ile Pro Glu Ile Ile Phe Tyr Thr
      290      295

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<210> 5149  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

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<400> 5149
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120
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180
cagctcctac cagaggacct cagaaaggag ctctatgaac tttgggaaga gtacgagacc
240
caatctagtg cagaagccaa atttgtgaag cagctagacc aatgtgaaat gattcttcaa
300
gcatctgaat atgaagacct tgaacacaaa cctggggagac tgcaagactt ctatgattcc
360
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420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
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533

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<210> 5150  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5150

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Xaa Arg Met Ala Val Met Ala Met Gly Ile Lys Asp Asp Arg Leu Asn
 1           5           10           15
Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys
 20           25           30
Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys
 35           40           45
His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro
 50           55           60
Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr
 65           70           75           80
Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu
 85           90           95
Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly
100           105           110
Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro
115           120           125
Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn
130           135           140
Ile Ala Ala Ala Ser Glu Pro His Ser
145           150

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&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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120
gagcctgagg cggcgagctc ccggggcagc cctgtgcgcg tgaagcgga gtctgagccg
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240
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360
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720
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780

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1980  
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2100  
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2160  
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2220  
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2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
      20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
      35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
      50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
      65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
      85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
      100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
      115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
      130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
      145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
      165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
      180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
      195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
      210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
      225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
      245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
      260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
      275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
      290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
      305          310          315          320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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60

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<210> 5154

<211> 162

<212> PRT

<213> Homo sapiens

<400> 5154

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Leu	Glu	Arg	Thr	Thr	Ser	Pro	Thr	Ile	Pro	Ser	Phe	Tyr	Thr	Phe
			20				25				30			
Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Thr	Gly
		35				40					45			
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu
	50					55				60				
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val
65					70				75				80	
Val	Gln	Phe	Ala	Ile	His	Arg	Leu	Gly	Phe	Gln	Pro	Gln	Asp	Ile
			85					90					95	
Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala
			100					105					110	
Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp
		115					120					125		
Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu
		130				135						140		
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Leu	Phe													

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<211> 1402

<212> DNA

<213> Homo sapiens